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SCIENCE FICTION

OCTOBER/NOVEMBER 2005

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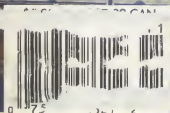
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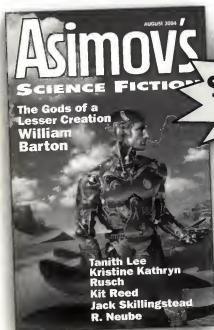
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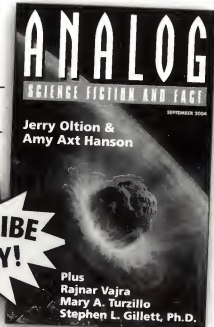
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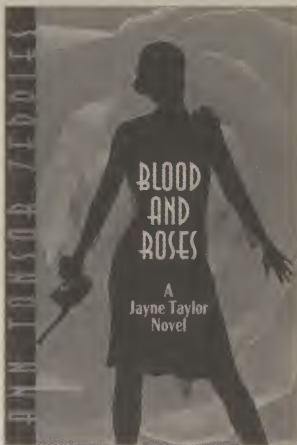
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BEHIND THE SCENES

Many people worked hard to create the current issue of *Asimov's*, and every issue of the magazine that has ever been published. Some of the names of these people appear on our masthead. Others are completely unsung. The job of buying the stories and writing editorials puts me at the forefront, but the magazine wouldn't exist, or wouldn't be the quality publication that it is, without people you are probably not familiar with.

Most of you know that I exist, some of you are aware of Brian Bieniowski, the magazine's talented associate editor, and, of course, you suspect the existence of the authors whose bylines accompany the stories. Brian and I are the only people who work on the magazine full time. We haven't used outside typesetters for years, so the two of us are completely responsible for the eventual electronic version of the magazine that will be sent to our printers, but we have a lot of help along the way.

I was reminded of the anonymity of many of these people recently when I received an email from Michael R. Wilson, a retired associate professor. I'll reproduce some of his comments below:

Hello, folks—

The quality of proofreading in *Asimov's* is generally above the current average for magazines (books? Don't get me started on books!), but somebody slipped over a homophone on p. 176 of the April/

May issue. The word "reigns" is misused in paragraph 3, line 4.

Who's the lucky soul that gets to do final vetting of text . . . or is that left to the writers, and the high text quality of *Asimov's* just reflects a remarkable punctilio peculiar to most SF authors?

Describing the process of editing, copyediting, proofreading, and the further vetting of proofs would take an entire editorial of its own. There is one individual, though, who, far more than me, Brian, or any of our authors, is responsible for the low error ratio in *Asimov's*. She is my long-time freelance professional proofreader and secret weapon, Margaret O'Connell. Margaret has been proofing the magazine for about twenty years. It was a love of SF that brought her to us. She would be a subscriber if she weren't paid to read *Asimov's*. Margaret has a Ph.D. in comparative literature, specializing in English and Spanish Renaissance Drama, from Princeton University. In addition to a deep understanding of the English language, she brings a wide breadth of general knowledge to her job. And what she doesn't know, she's sure to look up. She also loves comic books, and is the one proofreader who has made sure that the correct spelling and punctuation for Spider-Man has never slipped by us (although it almost invariably arrives here incorrectly). She has saved us from countless embarrassing mistakes. I always said that Margaret knew *everything*, and then about twelve

Asimov's

SCIENCE FICTION

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Please do not send us your manuscript until you've gotten a copy of our manuscript guidelines. To obtain this, send us a self-addressed, stamped business-size envelope (what stationery stores call a number 10 envelope), and a note requesting this information. Please write "manuscript guidelines" in the bottom left-hand corner of the outside envelope. The address for this and for all editorial correspondence is *Asimov's Science Fiction*, 475 Park Avenue South, New York, NY 10016. While we're always looking for new writers, please, in the interest of time-saving, find out what we're looking for, and how to prepare it, before submitting your story.

or thirteen years ago the *New Yorker* hired her as one of their full-time night proofreaders. Surely, proof that I was right.

Margaret doesn't read the material that comes in toward the end of the magazine's production—the stories' introductory blurbs, the table of contents, the next issue page, and my editorials. Any mistakes you find there are solely my responsibility. Errors can creep into stories at later stages of production, too, and every once in a while even Homer nods. Still, although you may catch a slip-up here and there, we, and our authors, are thankful for the thousands of errors Margaret has kept us from committing.

Margaret isn't the only person laboring behind the scenes on an issue of *Asimov's*.

I'd like to mention a couple of other people who have worked for years on these magazines. One of them is the formidable Carole Dixon. Carole is our senior production manager. She won't let me tell you how long she's worked on *Asimov's*, but I can tell you that she was well established when I arrived here about twenty-four years ago. Over the years, Carole has taught me an enormous amount about producing a magazine. She oversaw the transition from traditional to desktop publishing. She keeps us all on our toes. I don't miss deadlines because it would be costly and unprofessional, it's true, but also because I don't want to have to explain myself to Carole.

Carole is one of eleven children. She immigrated to the US from Trinidad and Tobago, and she has raised three accomplished children of her own while tending to all the Dell magazines.

While the computer revolution

has transformed every publishing department from art to accounting over the last twenty years, no department has been affected more than production. Carole has swept through every change like Alexander wielding his sword through the Gordian knot, and she's carried us right along with her.

Another long-time contributor to *Asimov's* is Victoria Green, our senior art director. Vicki joined Dell about fifteen years ago. She was primarily responsible for designing puzzle magazine covers until about seven years ago, when she took on the task of designing the science fiction and mystery magazine covers, too. Vicki is the mother of a ten-year-old son, Will, and she studied at the School of Visual Arts in New York City. She tells me that she "enjoys meeting and working with the wonderful SF illustrators, and finding new people and new options through the Internet." She works closely with the artists who create the original artwork for some of our stories, she helps us find reprints for other covers, and she procures all the art.

Space doesn't permit me to bring up everyone associated with producing this magazine. I hope, though, that this editorial has managed to give you a glimpse of some of the people, and some of the work, involved with the creation of every issue. In honor of the upcoming Halloween holiday, I've put together an issue that includes a few slightly spooky tales. If the ghosts and banshees in these stories of hauntings, murder, and betrayal cause you a little seasonal unrest, take comfort from the knowledge that this issue was lovingly fashioned for your eerie pleasure by a dedicated team of real people. ○

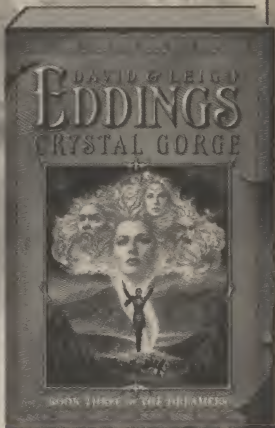
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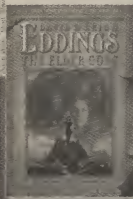
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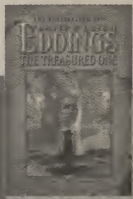


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SERIALS

A couple of days ago—I'm writing this in the last weeks of 2004—I received the January/February 2005 issue of our sister magazine *Analog*, in which Jack Williamson's new novel, *The Stonehenge Gate*, began its three-part serialization. That issue reminded me of two things: that Jack Williamson has held a central position in science fiction longer than I've been alive, and that the serialization of novels once held a central position in science fiction also, but that is very definitely not the case any more.

Williamson first. He was born in 1908, his first story was published in 1928, and in 1934 he established himself as a star of the first magnitude in our firmament with his imperishable novel, *The Legion of Space*. (Serialized in *Astounding Stories*, as *Analog* was known then, in six parts.) Here he is, seventy-one years after the publication of *Legion*, with yet another serial in that magazine. Its first installment appears in *Analog's* seventy-fifth anniversary issue. Williamson's career as a science fiction writer is thirteen months older than *Analog* itself, and he is still writing top-flight material. The mind reels at the thought.

But the serialization of novels in our field stopped mattering a long time ago, and that's a cause for some wonderment also.

Most science fiction novels now are launched as hardcover books, or, sometimes, as paperback origi-

nals. Nary a one of 2004's Hugo-nominated novels began its life as a magazine serial. That was not the case in earlier times, when book publication of science fiction was extremely rare and nearly every SF novel of any significance was published first in one of the magazines.

The tradition of serialization was firmly established in the early decades of the twentieth century by *Argosy*, an all-fiction magazine issued weekly at a time when there were no paperback books or television and movies had barely begun. Each issue had three, four, even five serial novels running concurrently—westerns, tales of jungle adventure, fantasy, science fiction. Many of the early classic novels of SF and fantasy appeared in its pages: those of Edgar Rice Burroughs, A. Merritt, Ray Cummings, Homer Eon Flint, George Allan England, and dozens of others.

When the first all-science-fiction magazine, *Amazing Stories*, was founded in 1926, it, too, began to run serials. Since it came out monthly rather than weekly, it couldn't do as many at a time as *Argosy* did, or stretch them out in as many installments. But its first issue offered a pair of two-part novels, one by Jules Verne and one by G. Peyton Wertenbaker, and serials remained an important part of its makeup thereafter. One of its early great achievements was E.E. "Doc" Smith's *The Skylark of Space*, in three parts starting in August 1928.

Jack Williamson made his debut as a serial-writer in the March 1930 issue, with a two-parter, *The Green Girl*. More novels by Doc Smith, John W. Campbell, Jr., John Russell Fearn, and other big figures of the period followed.

Very few of those early serials are remembered today. But when John Campbell took over the editorship of *Astounding* in 1937 he focused on publishing novels, and over the next decade or so brought out dozens that are essential to any understanding of the science fiction of the twentieth century. Doc Smith was a big contributor of serialized novels (*Gray Lensman*, 1939, and *Second-Stage Lensman*, 1941-42), as were L. Ron Hubbard (*Final Blackout*, 1940), A.E. van Vogt (*Slan*, 1940, *The Weapon Makers*, 1943, and *The World of Null-A*, 1945), but the dominant writer of the time was Robert A. Heinlein, with *If This Goes On—*, 1940, followed by *Sixth Column*, 1941, *Methuselah's Children*, 1941, and *Beyond This Horizon*, 1942. Isaac Asimov came along with his first serial in 1945, *The Mule*, a Foundation story done in two parts, and added another segment of the Foundation series four years later with the three-part . . . *And Now You Don't* of 1949. Other important serial novels during the Campbellian golden age were provided by Fritz Leiber, the ubiquitous Jack Williamson, Henry Kuttner and C.L. Moore, and Hal Clement.

The reason why all these novels came out in magazine form is simple: there was no other market for them. The publication of SF in books did not really get going until 1946, and the early publishers were financially shaky semi-pro outfits (Shasta Publishers, Gnome Press, Fantasy Press, etc.) that con-

centrated mainly on reprinting the magazine serials I've just been discussing. Only when Doubleday entered the science fiction field in 1949, and Ballantine Books a couple of years later, did the regular professional publication of SF in book form begin.

Even then, most SF novels came out first in the magazines. In 1950, when the shiny new magazine *Galaxy* made its much-publicized arrival, it announced a policy of running three serials a year, and backed that up with an astonishing run of significant novels, all of which would find their way into book form not long afterward: first Clifford D. Simak's *Time Quarry* (reprinted as *Time and Again*), then Isaac Asimov's *Tyrann* (done in book form as *The Stars, Like Dust*), and *Mars Child* by C.M. Kornbluth and Judith Merrill. The next couple of years saw *Galaxy* adding to its laurels with such memorable novels as Heinlein's *The Puppet Masters*, Frederik Pohl and C.M. Kornbluth's *Gravy Planet* (reprinted as *The Space Merchants*), Alfred Bester's two masterpieces, *The Demolished Man* and *The Stars My Destination*, and Asimov's *The Caves of Steel*.

I was a teenage reader and aspiring writer in the early 1950s when all that was going on, and I remember indulging, when I was fifteen, in one of those fantasies that are permissible when you're fifteen and merely nutty at any later age: that a time would come when I too would have a serial in *Astounding* or *Galaxy*, and, indeed, that for a whole year *Galaxy* would publish nothing but Silverberg novels. By the time I was twenty-two I had actually fulfilled the first part of that wild fantasy, when

Randall Garrett and I collaborated on *The Dawning Light*, a three-part novel that John Campbell serialized in early 1957. Many years later, to my amazement, I even brought off something close to the really absurd *Galaxy* dream: my novel *Downward to the Earth* ran in four parts beginning in November 1969, *Tower of Glass* ran in three, starting in May 1970, most of the stories making up my book *The World Inside* were published as individual novelets in the latter half of 1970, and *A Time of Changes* was serialized beginning in March 1971. (For good measure I threw in *Dying Inside* in the July and August 1972 issues.) It was a heady, breathless time for me, and somewhere in the midst of it I recalled my wild teenage dream of filling the pages of *Galaxy* with my novels, even as Heinlein had done in *Astounding* between 1940 and 1942, and found myself flabbergasted that it had come to pass.

Poul Anderson had done a similar Heinleinesque stunt in *Astounding* earlier, with *The Man Who Counts* in the issues for February, March, and April, 1958, and then *We Have Fed Our Sea* in August and September, followed immediately in October and November with *A Bicycle Built for Brew*. Anderson also holds the distinction of being the author of one of the few *unfinished* serials in science fiction history: the first half of the novel that later would be known as *Brain Wave* appeared in the September 1953 issue of the short-lived *Space Science Fiction* under the title of *The Escape*, but *Space* expired with that issue and readers left dangling by Anderson's cliffhanger ending to the first part had to wait until the next year for

book publication of the complete text.

Cliffhangers, of course, were an essential feature of serializations: each segment of the book had to end with the universe in peril, at the very minimum, and most novels of that era were constructed with that requirement in mind. If you read them carefully today, you can still see where the serial breaks came. (The most common serial format was the three-parter, which required two interior climaxes, though, as I've shown, novels in two or four parts weren't rare. As I said, Williamson's *Legion of Space* ran in six installments, though. Decades later, Frank Herbert's *Dune* was an epic eight-parter in *Analog*, although with an intermission, the first section running from December 1963 to February 1964, and the second in five installments beginning with the January 1965 issue.)

The great boom in SF book publishing that began in the 1950s brought into being more important novels than the magazines of the day could handle as serials. Thus such major books as Arthur Clarke's *Childhood's End*, Theodore Sturgeon's *More Than Human*, and Ray Bradbury's *Fahrenheit 451* all appeared first as original books, though excerpts from them were published as magazine novellas. The magazines continued to run serials regularly on through the 1960s and 1970s, but only a handful of each year's new novels now came out first in magazine form. The author of a science fiction novel no longer was faced with the choice between serial publication and no publication at all, and often it was more advantageous to go straight to a book publisher.

Today, SF novels in hardcover

and paperback pour forth upon us by the hundreds every year. Few can hold the spotlight for more than a moment or two before being jostled aside by the oncoming hordes. The old days when a novel like *Slan* or *The Demolished Man* would be serialized in one of the leading magazines, immediately read and discussed by everyone who cared about SF, and promoted instantly to classic status, are gone.

Today's magazines concentrate on shorter fiction and leave the novels to the book publishers. *Analog* still runs a couple of serials a year, but hardly anyone else does. *Asimov's* has serialized just four novels in its entire history—one by William Gibson, two by Michael Swanwick, one by Robert Silverberg. "The amount of time between the serialization of and the actual appearance of the book on bookstore shelves had begun to shrink," former editor Gardner Dozois told me recently, "so that sometimes only a month or two would go by between the end of the serial and the appearance of the book, and I began to think, why

waste all that space, a huge chunk of at least three issues, to print something that everybody was going to be able to buy elsewhere a month later anyway?" If he were still editing now, said Dozois, he would consider serializing only those books that were "too weird or controversial to sell to the trade houses, so that the readers would be getting something they *couldn't* get somewhere else later down the line." But such books seem to be few and far between, and many were too long for serialization.

A vanished era, yes. And yet here is Jack Williamson giving us one more three-parter in *Analog*, seventy-one years after his serial *The Legion of Space*, seventy-five years after *The Green Girl*. Like the Great Pyramid of Gizeh rising above the Egyptian sands does Williamson endure. He is the most versatile of our writers, changing and growing with the decades. But, fresh and vigorous as his new novel is, it is, I think, one of the last of its kind, a relic of yesteryear's publishing customs. ○

We'd like to continue doing a letters column, and welcome your letters. Please send them to **Asimov's**, 475 Park Avenue South, Floor 11, New York, NY 10016, or e-mail to asimovs@delmagazines.com. Space and time make it impossible to print or answer all letters, but please include your mailing address even if you use e-mail. If you don't want your address printed, put it only in the heading of your letter; if you do want it printed, please put your address under your signature. We reserve the right to shorten and copy-edit letters. The email address is for editorial correspondence *only*—please direct all subscription inquiries to: 6 Prowitt Street, Norwalk, CT 06855.

ADVENTURES IN GNARLY COMPUTATION

Everything Is a Computation

What is reality? One type of answer to this age-old question has the following format: "Everything is _____." Over the years I've tried out lots of different ways to fill in the blank: particles, bumps in spacetime, thoughts, mathematical sets, and more. I once had a friend who liked to say, "The universe is made of jokes."

Now there may very well be no correct way to fill in the "Everything is" blank. It could be that reality is fundamentally pluralistic, that is, made of up all kinds of fundamentally incompatible things. Maybe there really isn't any single one underlying substance. But it's interesting to think that perhaps there is.

Lately I've been working to convince myself that everything is a computation. I call this belief *universal automatism*. Computations are everywhere, once you begin to look at things in a certain way. The weather, plants and animals, your personal thoughts and shifts of mood, society's history and politics—all computations.

One handy aspect of computations is that they occur at all levels and in all sizes. When you say that everything's made of elementary particles, then you need to think of large-scale objects as being made of a zillion tiny things. But computations come in all scales, and an ordinary natural process can be thought of as a single high-level computation.

If I want to say that all sorts of

processes are like computations, it's to be expected that my definition of computation must be fairly simple. I go with the following: A *computation* is a process that obeys finitely describable rules.

People often suppose that a computation has to "find an answer" and then stop. But our general notion of computation allows for computations that run indefinitely. If you think of your life as a kind of computation, it's quite abundantly clear that there's not going to be a final answer and there won't be anything particularly wonderful about having the computation halt! In other words, we often prefer a computation to yield an ongoing sequence of outputs rather than to attain one final output and turn itself off.

Everything Is a Gnarly Computation

If we suppose that many natural phenomena are in effect computations, the study of computer science can tell us about the kinds of natural phenomena that can occur. Starting in the 1980s, the scientist-entrepreneur Stephen Wolfram did a king-hell job of combing through vast seas of possible computations, getting a handle on the kinds of phenomena that can occur, exploring the computational universe.

Simplifying just a bit, we can say that Wolfram found three kinds of processes: the predictable, the randomness-looking, and what I term the

gnarly. These three fall into a Goldilocks pattern.

• *Too cold (predictable)*. Processes that produce no real surprises. This may be because they die out and become constant, or because they're repetitive in some way. The repetitions can be spatial, temporal, or scaled so as to make fractally nested patterns that are nevertheless predictable.

• *Too hot (random-looking)*. Processes that are completely scuzzy and messy and dull, like white noise or video snow. The programmer William Gosper used to refer to computational rules of this kind as "seething dog barf."

• *Just right (gnarly)*. Processes that are structured in interesting ways but nonetheless unpredictable. In computations of this kind we see coherent patterns moving around like gliders; these patterns produce large-scale information transport across the space of the computation. Gnarly processes often display patterns at several scales. We find them fun to watch because they tend to appear as if they're alive.

Gnarliness lies between predictability and randomness. It's an interface phenomenon like organic life, poised between crystalline order and messy deliquescence.

Why do I use the word gnarly? Well, the original meaning of "gnarl" was simply "a knot in the wood of a tree." In California surfer slang, "gnarly" came to be used to describe complicated, rapidly changing surf conditions. And then, by extension, something gnarly came to be anything with surprisingly intricate detail. As a late-arriving and perhaps over-assimilated Californian, I get a kick out of the word.

Clouds, fire, and water are gnarly in the sense of being beautifully intricate, with purposeful-looking but not quite comprehensible patterns. Although the motion of a projectile through empty space would seem to be predictable, if we add in the effects of mutually interacting planets and suns, the calculation may become gnarly. And earthly objects moving through water or air tend to leave turbulent wakes—which very definitely involve gnarly computations.

All living things are gnarly, in that they inevitably do things that are much more complex than one might have expected. The shapes of tree branches are of course the standard example of gnarl. The life cycle of a jellyfish is way gnarly. The wild three-dimensional paths that a hummingbird sweeps out are kind of gnarly too, and, if the truth be told, your ears are gnarly as well.

Needless to say, the human mind is gnarly. I've noticed, for instance, that my moods continue to vary even if I manage to behave optimally and think nice correct thoughts about everything. I might suppose that this is because my moods are affected by other factors—such as diet, sleep, exercise, and biochemical processes I'm not even aware of. But a more computationally realistic explanation is simply that my emotional state is the result of a gnarly unpredictable computation, and any hope of full control is a dream.

Still on the topic of psychology, consider trains of thought, the free-flowing and somewhat unpredictable chains of association that the mind produces when left on its own. Note that trains of thoughts need not be formulated in words. When I watch, for instance, a tree branch bobbing in the breeze, my mind plays with

the positions of the leaves, following them and automatically making little predictions about their motions. And then the image of the branch might be replaced by a mental image of a tiny man tossed up high into the air. His parachute pops open and he floats down toward a city of lights. I recall the first time I flew into San Jose, and how it reminded me of a great circuit board. I remind myself that I need to see about getting a new computer soon, and then in reaction, I think about going for a bicycle ride. And so on.

Society, too is carrying out gnarly computations. The flow of opinion, the gyrations of the stock markets, the ebb and flow of success, the accumulation of craft and invention—gnarly, dude.

So What?

If you were to believe all the ads you see, you might imagine that the latest personal computers have access to new, improved methods that lie wholly beyond the abilities of older machines. But computer science tells us that if I'm allowed to equip my old machine with additional memory chips, I can always get it to behave like any new computer.

This carries over to the natural world. Many naturally occurring processes are not only gnarly, they're capable of behaving like any other kind of computation. Wolfram feels that this behavior is very common, and he formulates this notion in the claim that he calls the *Principle of Computational Equivalence (PCE)*: Almost all processes that are not obviously simple can be viewed as computations of equivalent sophistication.

If the PCE is true, then, for in-

stance, a leaf fluttering in the breeze outside my window is as computationally rich a system as my brain. I seem to be a fluttering leaf? Some scientists find this notion an affront. Personally, I find serenity in accepting that the flow of my thoughts and moods is a gnarly computation that's fundamentally the same as a cloud, a flame, or a fluttering leaf. It's soothing to realize that my mind's processes are inherently uncontrollable. Looking at the waving branches of trees calms me down.

But rather than arguing for the full PCE, I think it's worthwhile to formulate a slightly weaker claim, which I call the *Principle of Computational Unpredictability (PCU)*: Most naturally occurring complex computations are unpredictable.

In the PCU, I'm using "unpredictable" in a specific computer-science sense; I'm saying that a computation is unpredictable if there's no fast shortcut way to predict its outcomes. If a computation is unpredictable and you want to know what state it'll be in after, say, a million steps, you pretty much have to crunch out those million steps to find out what's going to happen.

Traditional science is all about finding shortcuts. Physics 101 teaches students to use Newton's laws to predict how far a cannonball will travel when shot into the air at a certain angle and with a certain muzzle-velocity. But, as I mentioned above, in the case of a real object moving through the air, if we want to get full accuracy in describing the object's motions, we need to take the turbulent flow of air into account. At least at certain velocities, flowing fluids are known to produce computationally complex patterns—think of the bumps and ripples that move back and forth along the lip of a wa-

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terfall, or of eddies of milk stirred into coffee. So an earthly object's motion will often be carrying out a gnarly computation, and these computations are unpredictable—meaning that the only certain way to get a really detailed prediction of an artillery shell's trajectory through the air is to simulate the motion every step of the way. The computation performed by the physical motion is unpredictable in the sense of not being reducible to a quick shortcut method. (By the way, simulating trajectories was the very purpose for which the U.S. funded the first electronic computer, ENIAC, in 1946, the same year in which I was born.)

Physical laws provide, at best, a recipe for how the world might be computed in parallel particle by particle and region by region. But—unless you have access to some so-far-unavailable ultra-super computer that simulates reality faster than the world does itself—the only way to actually learn the results is to wait for the actual physical process to work itself out. There is a fundamental gap between T-shirt physics equations and the unpredictable gnarl of daily life.

Some SF Thought Experiments

One of the nice things about science fiction is that it lets us carry out thought experiments. Mathematicians adopt axioms and deduce the consequences. Computer scientists write programs and observe the results of letting the programs run. Science fiction writers put characters into a world with arbitrary rules and work out what happens.

Science fiction is a powerful futurological tool because, in practice, there are no quick shortcuts for pre-

dicting the effects of new technological developments. Only if you place the new tech into a fleshed-out fictional world and simulate the effects in your novelistic reality can you get a clear image of what might happen.

This relates to the ideas I've been talking about. We can't predict in advance the outcomes of naturally occurring gnarly systems; we can only simulate (with great effort) their evolution step by step. In other words, when it comes to futurology, only the most trivial changes to reality have easily predictable consequences. If I want to imagine what our world will be like one year after the arrival of, say, soft plastic robots, the only way to get a realistic vision is to fictionally simulate society's reactions during the intervening year.

These days I've been working on a fictional thought experiment about using natural systems to replace conventional computers. My starting point is the observed fact that gnarly natural systems compute much faster than our supercomputers. Although in principle, a supercomputer can simulate a given natural process, such simulations are at present very much slower than what nature does. It's a simple matter of resources: a natural system is inherently parallel, with all its parts being updated at once. And an ordinary sized object is made up of something on the order of an octillion atoms (10^{27}) http://education.jlab.org/qa/math_atom_04.html. Naturally occurring systems update their states much faster than our digital machines can model what the process is. That's why existing computer simulations of reality are still rather crude.

(Let me insert a deflationary side-remark on the Singularity that's supposed to occur when intelligent computers begin designing even

more intelligent computers and so on. Perhaps the end result of this kind of process *won't* be a god. Perhaps it'll be something more like a wind-rifled pond, a campfire, or a fly buzzing around your backyard. Nature is, after all, already computing at the maximum possible flop.)

Now let's get into my own thought experiment. If we could harness a natural system to act as a computer for us, we'd have what you might call a *paracomputer* that totally outstrips anything that our man-made beige buzzing desktop machines can do. I say "paracomputer" not "computer" to point out the fact that this is a *natural object* which behaves like a computer, as opposed to being a high-tech totem that we clever monkeys made. Wolfram's PCE suggests that essentially any gnarly natural process could be used as a paracomputer.

A natural paracomputer would be powerful enough to be in striking range of predicting other natural systems in real time or perhaps even a bit faster than real time. The problem with our naturally occurring paracomputers is that they're not set up for the kinds of tasks we like to use computers for—like predicting the stock market, rendering Homer Simpson, or simulating nuclear explosions.

To make practical use of paracomputers we need a solution to what you might call the *codec* or coding-decoding problem. If you want to learn something specific from a simulation, you have to know how to code your data into the simulation and how to decode it back out. Like suppose you're going to make predictions about the weather by reading tea-leaves. To get concrete answers, you *code* today's weather into a cup of tea, which you're using as a para-

computer. You swirl the cup around, drink the tea, look at the leaves, and *decode* the leaf pattern into tomorrow's weather. Codec.

This is a subtle point, so let me state it again. Suppose that you want to simulate the market price of a certain stock, and that you have all the data and equations to do it, but the simulation is so complicated that it requires much more time than the real-time period you want to simulate. And you'd like to turn this computation into, say, the motions of some wine when you pour it back and forth between two glasses. You know the computational power is there in the moving wine. But where's the codec? How do you feed the market trends into the wine? How do you get the prediction numbers out? Do you drink the paracomputer?

Finding the codec that makes a given paracomputer useful for a particular task is a hard problem, but once you have the codec, your paracomputer can solve things very fast. But how to find the codec? Well, let's use a science fiction cheat, let's suppose that one of the characters in our thought experiment is, oh, a mathematical genius who creates a really clever algorithm for rapidly finding codecs that are, if not perfect, at least robust enough for practical use.

So now suppose that we're able, for instance, to program the wind in the trees and use it as a paracomputer. Then what? For the next stage of my thought experiment, I'm thinking about a curious real-world limitative result that could come into play. This is the Margolus-Levitin theorem, which says that there's some maximum computational rate that any limited region of spacetime can perform at any given energy level. (See for instance Seth Lloyd's paper on the

"Computational Capacity of the Universe," <http://arxiv.org/PS_cache/quant-ph/pdf/0110/0110141.pdf>.) The limit is pretty high—some ten-to-the-fiftieth bit-flips per second on a room-temperature laptop—but science fiction writers love breaking limits.

In the situation I'm visualizing, a couple of crazy mathematicians (some things never change!) make a paracomputer from a vibrating membrane, use clever logic to find desired codecs, and set the paracomputer to predicting its own outputs. I expect the feedback process to produce an ever-increasing amount of computation within the little paracomputer. The result is that the device is on the point of violating the Margolus-Levitin limit, and perhaps the way the universe copes with this is by bulging out a big extra hump of spacetime in the vicinity of the paracomputer. And this hump acts as—a tunnel to a higher universe inhabited by, of course, super-intelligent humanoid cockroaches and carnivorous flying cone shell mollusks!

Now let's turn the hard-SF knob up to eleven. Even if we had natural paracomputers, we'd still be limited by the PCU, the principle that most naturally occurring computations are unpredictable. Your paracomputers can speed things up by a linear factor because they're so massively parallel. Nevertheless, by the PCU, most problems would resist being absolutely crushed by clever shortcuts. The power of the paracomputer may indeed let you predict tomorrow's weather, but eventually the PCU catches up with you. You still can't predict, say, next week's weather. Even with a paracomputer you might be able to approximately predict a person's activities for half an hour, but not to a huge degree of ac-

curacy, and certainly not out to a time several months away. The PCU makes prediction impossible for extended periods of time.

Now, being a science fiction writer, when I see a natural principle, I wonder if it could fail. Even if it's a principle such as the PCU that I think is true. (An inspiration here is a story by Robert Coates, "The Law," in which the law of averages fails. The story first appeared in the *New Yorker* of November 29, 1947, and can also be found in Clifton Fadiman's *The Mathematical Magpie*.)

So now let's suppose that, for their own veiled reasons, the alien cockroaches and cone shells teach our mathematician heroes some amazing new technique that voids the PCU! This notion isn't utterly inconceivable. Consider, for instance, how drastically the use of language speeds up the human thought process. Or the way that using digital notion speeds up arithmetic. Maybe there's some thought tool we've never even dreamed of that can in fact crush any possible computation into a few quick chicken-scratches on the back of a business card. So our heroes learn this trick and they come back to spread the word.

And then we've got a world where the PCU fails. This is a reality where we can rapidly predict all kinds of things arbitrarily far into the future: weather, moods, stocks, health. A world where people have oracles. SF is all about making things immediate and tactile, so let's suppose that an oracle is like a magic mirror. You look into it and ask it a question about the future, and it always gives you the right answer. Nice simple interface. What would it be like to live in a world with oracles?

I'm not sure yet. I'm still computing the outcome of this sequence of



Rudy plays with a gnarly patterned cone-shell, imagining the reality-warping effects of its sting.

thought experiments—the computation consists of writing an SF novel called *Mathematicians in Love*.

How Gnarly Computation Ate My Brain

I got my inspiration for universal automatism from two computer scientists: Edward Fredkin and Stephen Wolfram. In the 1980s, Fredkin <http://www.digitalphilosophy.org/> began saying that the universe is a particular kind of computation called a cellular automaton (CA for short). The best-known CA is John Conway's Game of Life, but there are lots of others. I myself have done research involving CAs, and have perpetrated two separate free software packages for viewing them. <http://www.rudyruicker.com/lifebox/downloads/>

Wolfram is subtler than Fredkin; he doesn't say that the universe is a cellular automaton. Wolfram feels that the most fundamental secret-of-life type computation should instead be something like a set of rules for building up a network of lines and dots. He's optimistic about finding the ultimate rule; recently I was talking to him on the phone and he said he had a couple of candidates, and was trying to grasp what it might mean to say that the secret of the universe might be some particular rule with some particular rule number. Did someone say 42?

I first met Wolfram at the Princeton Institute for Advanced Study in 1984; I was a freelancer writing an article about cellular automata destined for, as chance would have it, *Asimov's Science Fiction* (April 1987). You might say that Wolfram converted me on the spot. I moved to

Silicon Valley, retooled, and became a computer science professor at San Jose State University (SJSU), also doing some work as a programmer for the computer graphics company Autodesk. I spent the last twenty years in the dark Satanic mills of Silicon Valley. Originally I thought I was coming here as a kind of literary lark—like an overbold William Blake manning a loom in Manchester. But eventually I went native on the story. It changed the way I think.

For many years, Wolfram promised to publish a book on his ideas, and finally in 2002 he published his monumental *A New Kind of Science*, now readable in its entirety online <<http://www.wolframscience.com/nksonline/toc.html>>. I

like this book exceedingly; I think it's the most important science book of our generation. My SJSU grad students and I even created a website for it. <<http://sjsu.rudyrucker.com/>>

I'd been kind of waiting for Wolfram to write his book before I wrote my own book about the meaning of computation. So once he was done, I was ready to brush the lint of bytes and computer code off myself, step into the light, and tell the world what I learned among the machines. The result: *The Lifebox, the Seashell, and the Soul: What Gnarly Computation Taught Me About Ultimate Reality, the Meaning Of Life, and How To Be Happy* (Thunder's Mouth Press, 2005) <<http://www.rudyrucker.com/lifebox>>.

Where did I get my book's title? I invented the word "lifebox" some years ago to describe a hypothetical technological gizmo for preserving a human personality. In my book title, I'm using "Lifebox" as shorthand for the universal automatist thesis that everything, even human consciousness, is a computation.

The *antithesis* is the fact that nobody is really going to think that a wisened-up cell-phone is alive. We all feel we have something that's not captured by any mechanical model—it's what we commonly call the soul.

My *synthesis* is that gnarly computation can breathe life and soul into a lifebox. The living mind has a churning quality, like the eddies in the wake of a rock in a stream—or like the turbulent patterns found in cellular automata. Unpredictable yet deterministic CAs can be found in nature, most famously in the patterns of the Wolfram-popularized South Pacific sea snail known as the textile cone. Thus the "seashell" of my book title. (See <<http://www.rudyrucker.com/blog/search.php?q=cone+shell>> for information about these venomous mollusks.)

Coming back to Wolfram's *A New Kind of Science*, a lot of people seem to have copped an attitude about this book. Although it sold a couple of hundred thousand copies, many of the reviews were negative <http://www.math.usf.edu/~eclark/ANKOS_reviews.html>, and it's my impression that people are not enthusiastically taking up his ideas. Given that I think these ideas are among the most important new intellectual breakthroughs of our time, I have to wonder about the resistance.

I see three classes of reasons why scientists haven't embraced universal automatism. (1) *Dislike the messenger*. Thanks to the success of his *Mathematica* software, Wolfram is a millionaire entrepreneur rather than a professor. Perhaps as a result, he has a hard-sell writing style, an iconoclastic attitude toward current scientific practice, and a sometimes cavalier attitude toward the niceties of sharing credit. (2) *Dislike*

the form of the message. Some older scientists resent the expansion of computer science and the spread of computational technology. If you hate and fear computers, you don't want to hear the world is made of computations! (3) *Dislike the content of the message.* Wolfram's arguments lead to the conclusion that many real-world scientific questions are impossible to solve. Being something of a perennial *enfant terrible*, Wolfram is prone to putting this as bluntly as possible, in effect saying that traditional science is a blind alley, a waste of time. Even though he's to some extent right, it's hardly surprising that the mandarins of science aren't welcoming him with open arms.

One thing that sets my book off from Wolfram's is the goal. At this point in my life, I don't worry very much about convincing anyone of anything. To me the real purpose of writing a science book is to achieve personal enlightenment. And to get new ideas for science fiction novels.

On the enlightenment front, *The*

Lifebox, the Seashell, and the Soul ends with a discussion of six keys to happiness, drawn from considerations involving six successively higher levels of gnarly computation. And these will make a nice note upon which to end this article.

- *Computer science.* Turn off the machine. Nature computes better than any buzzing box.

- *Physics.* See the gnarl. The world is doing interesting things all the time. Keep an eye on the clouds, on water, and on the motions of plants in the wind.

- *Biology.* Pay attention to your body. It's at least as smart as your brain. Listen to it, savor its complexities.

- *Psychology.* Release your thoughts from obsessive loops. Avoid repetition and go for the gnarl.

- *Sociology.* Open your heart. Others are as complex as you. Each of us is performing much the same kind of computation. You're not the center.

- *Philosophy.* Be amazed. The universe is an inexplicable miracle. ○

Rudy Rucker is a writer, a mathematician, and a computer scientist—in that order. Born in Kentucky in 1946, he moved to Silicon Valley when he turned forty and recently retired from his professorship at San Jose State University. Rudy has published twenty-six books, primarily science fiction and popular science. He was an early cyberpunk and an editor at Mondo 2000. His most recent books are: The SF novel, Frek and the Elixir (Tor Books, 2004), and the nonfiction book, The Lifebox, the Seashell and the Soul: What Gnarly Computation Taught Me About Ultimate Reality, the Meaning of Life and How to Be Happy (Thunder's Mouth Press, Fall 2005). Rudy is currently writing a novel called Mathematicians in Love, which gives SFictional life to some of his ideas about computation. His website can be found at www.rudyruker.com.

MEMORY WORK

L. Timmel Duchamp

L. Timmel Duchamp is the author of *The Grand Conversation* (2004), a collection of essays; *Love's Body, Dancing in Time* (2004), a collection of short fiction; and *Alanya to Alanya* (2005), a novel. She has been a finalist for the Sturgeon, Homer, and Nebula awards, and has been short-listed four times for the James Tiptree, Jr. Memorial Award. An ample selection of her critical writing as well as a few of her stories can be found at *ltimmel.home.mindspring.com*. In her powerful new story, the author explores how humanity might survive even the most devastating alien invasion.

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Each time "I" speaks, a virtual self is born.
—Amanda S. Fielding

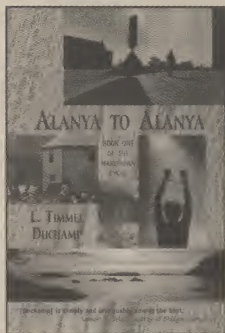
1.

She called it the End of the World, a designation that marked the limits of her attempt to comprehend the intolerably incomprehensible. On January sixteenth, the world was much as it had been the previous day (which is not to say what it had been the previous *year*, given the rapidity of change in her world), but on January seventeenth it began to collapse, and a few days after that it was gone, irretrievably. From perhaps January nineteenth on she began to think that though the means bring-

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ing about the End were not any she could ever have imagined, the *feel* of her tenuous day-to-day survival was exactly what she remembered experiencing in the many End-of-the-World scenes she had been dreaming since childhood.

January seventeenth was a gray, cold, gloomy day in her city. At around noon reports of "widespread wildness" of youth began to filter into her office from around the world. At 3:30, she and her coworkers were dismissed early so that there would be no chance that any of them would be out and about after dark. The "wildness" had arrived in her city, too.

She spent the evening chatting on the phone, explaining it all to friends and relatives as simple mass hysteria exacerbated by the copycat syndrome, and that the news media were making too much of it. She had been glued to CNN since arriving home from work, tearing herself away only for telephone solace and to cruise the Internet for additional, less official, information. She was not at first overly concerned, because the media initially portrayed the "wildness" as a sort of global gang World War, organized along racial and ethnic lines, and also because she was used to watching catastrophic situations on CNN, whose anchors had been trained to keep viewers' fear and despair aroused but distanced.

By daybreak she understood that the situation had gone beyond even the possibility of control. Throughout the night a constant barrage of gunfire and bursts of screams, shrieks, and bellows had been carried to her on the wind. In the morning she saw from her fourth-floor windows that a significant portion of the city was ablaze. Local television stations advised people not to call 911 or indeed any municipal or county numbers at all. "The authorities are overwhelmed," they said at frequent intervals. A tape of the mayor pleading with people to keep their adolescent children home for their own (and the community's) safety reran every fifteen minutes.

All morning she tried to get through to the friends and relatives she had spoken with the night before, but the circuits were always busy. A few minutes before noon, her phone went dead. CNN reported that most national guard units and much of the regular armed forces had been rendered ineffectual by so many of their members having themselves "gone wild"—while in possession of tanks, rifles, and other fierce armaments the Secretary of Defense declined to specify. By late afternoon, terrible things were happening within view of the windows of her apartment. Shivering, her muscles knotted painfully with tension, she wondered whether "they" ever slept.

When dark fell, not much before five, she debated the wisdom of turning on her lights. Since other windows in the neighborhood were dark, hers, if lit, would stand out, inviting, as it were, "their" attention. But if her apartment windows were dark, "they" might think no one was in the apartment and feel free to loot and vandalize it. In the end, she elected to close the blinds and put on a few low lights away from the windows. She could not bear the thought of waiting with her terror in the dark alone.

A knock rattled her door at around six-thirty. "Hello?" a voice called through the door. "Is anyone home? It's Mrs. Mathers, from across the hall. Hello? Hello?"

Recognizing the voice, thin and creaking and tinnily resonant, she opened the door to the stooped and scrawny lady who had been living across the hall from her for the last six years. Their entire relationship consisted of exchanging polite greetings and accepting UPS deliveries for one another, and of the occasional borrowing and lending of an egg or tablespoon of baking powder or cup of milk. "My phone has been out since noon," Mrs. Mathers said. "And I'm growing most concerned about the disorder." The old lady's eyes were bleak with fear, but retired English teacher that she was, she spoke as correctly as ever. "Unless you'd rather be alone, I thought we might sit together for a while, to keep up our morale."

She wondered then why she hadn't thought of that herself. It certainly made more sense than crouching in a corner, straining to hear the sounds of approaching danger. "Please, do come in," she said. She hadn't used her voice in hours and was dismayed to hear the wobble in it.

They sipped their way through several pots of tea. Mrs. Mathers said that it was the apparently global occurrence of the "disturbances" that frightened her. "I hardly know what to think," she said. "We're used to youth disturbances, of course, with all those Second-Echo Baby-boomers always so angry because the state legislatures won't fund higher education any longer, but the disorder we're seeing now, I fear, is something on an entirely different scale." The old lady's sharp black eyes bored into hers. "I have been cudgeling my brains all day to find a plausible explanation. Do you think some outlandish secret military chemical has been inadvertently unleashed?"

The experts on CNN all characterized the disorder as "copycat behavior on a scale never before experienced." But then the media was focused entirely on the President's declaration of a National State of Emergency and his urging parents to rein in their own children. "It's a matter of individual, personal responsibility," the President said in a constantly rerun sound-bite, words every commentator and anchorperson repeated almost every time they opened their mouths.

Even under the imminent threat of the End of the World, Mrs. Mathers was proper as proper could be. Her long brown and pink fingers, though trembling visibly, still managed to look school-teacherly with every sip she took from the blue and gold handmade mug. *She*, wanting to speak of ordinary, neutral things, asked Mrs. Mathers how long she had lived in the city.

"Oh my dear," Mrs. Mathers said. She smiled and shook her head and sighed all at once. "I've lived here more than fifty years, if you can believe that." Oh yes, and had taught in the public school system for thirty-five of those years.

The two women exchanged particulars, much of which both had already deduced about the other in their day-to-day neighborly observances. They told one another about their families and not-too-personal details of their individual histories. *She* remembers that much.

But she has no memory of what happened after that. She knows only that the next night, or maybe it was the night after, she was crouching in the alley, behind the Dumpster, crowded up against the bare winter

branches of the lilac bush, shivering violently with cold, so stiff she could hardly move, her clothing wet through to the skin except for the parts protected by her Góre-tex jacket—alone. The stench of burning plastics was so thick in the air that her throat was raw and her stomach heaving with nausea. She also smelled the urine and vomit on her jeans and could not stop thinking about how wonderful it would be to die clean and dry in her bed. Her hope of escaping (to where? All the world had become hell) had sunk so low that the very idea of a “good death” had become a kind of promise to herself. *If they’ve finished their vandalism, and if I can get back to the apartment, then I’ll take a bath, get into bed, and kill myself. Either by taking every tablet of every medication in the medicine cabinet—which, cumulatively, at least, should make a lethal dose—or by cutting my throat with the large Sabatier.*

At least the apartment building hadn’t been burned to the ground.

The noise bothered her most. The shrieks and screams and hysterical laughter and gunfire never stopped, while it seemed that every car stereo and boom-box in the city was thumping, thumping, thumping at maximum volume, like the drum roll accompanying a firing squad.

“Kid, no, don’t do it!” The voice, hoarse and male, sounded shockingly near, and she at once recognized it as belonging to Mrs. Mathers’ favorite grandson, a tough-ass, plainclothes police officer who two years back had introduced himself as “Lieutenant Creighton” when he’d knocked on her door to ask her to call him if she saw anyone trying to enter Mrs. Mathers’ apartment during the latter’s stay in the hospital.

She peered around the Dumpster. Creighton stood with his back to the apartment building and his legs spread wide. He gripped an ugly snub-nosed weapon at arm’s length from his body with both hands. Because it was dark she didn’t at first see the girl, but, by following the line of Creighton’s arms and weapon, she spotted her about three yards from the man, dancing crazily in the rain, hands milling spastically in the air over her head—brandishing a hand grenade.

“Easy, girl, easy. Set it down, gently, on the ground.”

Though Creighton’s voice remained wonderfully steady and authoritative as he tried to talk her into sanity, the girl’s dance grew frenzied. *She* wondered if she should risk bolting. She thought the worst thing would be to be wounded and not killed. There was no damned way anybody was going to be fixing any injuries.

Creighton opened fire without warning. The kid collapsed. As she went down she dropped the hand grenade, which hit the concrete, bounced, and rolled a few yards down the alley, toward the Dumpster.

She closed her eyes, fearing the worst. Though her ears rang and buzzed from the shock of the gunshot, she heard footsteps pound around the corner, into the alley. She opened her eyes in time to see Creighton, bent low to the ground, head straight toward her. Six quick shots rang out, thundering in her ears, sounding closer even than Creighton’s had. Creighton crumpled into a heap, near enough for her to glimpse an expression of surprise on his face. Since he was looking straight at her, it could be either because he was surprised to see her lurking behind the Dumpster or surprised to have been shot.

"My granny," she thought he said.

"Hey, the sucker's still alive!"

She pressed back into the lilac branches, so far back that she could no longer see Creighton. The alley resounded with another, louder burst of shots. She thought, Maybe I should make a noise and they'll shoot without looking and blow their chance to torture me.

Because of the ringing and roar in her ears, she heard nothing for a while, not even the constant distant whine of armored helicopters fighting fires. She perceived only the stench of burning, the sick orange of the sky, the cold, the drizzle, the darkness. Time dragged on, beating at the terminal verge. Her despair weighed more heavily on her at that moment than she had ever imagined possible.

Eventually she decided the alley was probably as safe as it was going to get. She knew that if she didn't move soon, she likely never would. Slowly, painfully, stiffly, she eased herself out around the Dumpster. When she saw the heap of clothing and blood Creighton had become, she took care to keep her eyes averted from where she thought his head must be.

A weapon, given the situation, could simplify matters to the ultimate degree possible. She understood that with the sharpest clarity. But she was squeamish, and it looked as though Creighton was lying on it. Also, possessing his gun might delude her with a false hope of survival, which she knew would be stupid. So she left the weapon and concentrated her thoughts on whether a return to her apartment was now feasible.

From what she could see of it, the building appeared to be completely dark, inside and out—and, significantly, silent. Surely, she thought, that meant that those boys and girls weren't still rampaging within. They did not seem to take any interest in doing anything quietly—which lying in wait for anyone to return would require.

Of course, they could be *sleeping* in there. It didn't seem as though they ever slept, but she supposed they must. And considering what she knew about the behavior of their wildness, if they did sleep, they probably slept in large groups, sprawled like beasts in dens, sated or exhausted from the excesses of their violence.

It struck her at that moment, for the first time, that what was strangest about their behavior, apart from its crossing all lines of sex, class, race, and religious orientation, was that their violence seemed not to be directed against adolescents marked as other, as one expected with youth, but against the whole rest of the normal world.

The risk terrified her, but she could not bear to continue her cold, wet huddle in the alley. She supposed there were a few safe places where crowds of people sheltered under armed guards, but she lacked the strength and courage to go in search of them. All she wanted was to crawl into her bed and die, by her own hand, in peace. It was all she could think of. (It was all she could bear to think of.) And so, bent over almost to the waist, she lurched stiffly, on feet gone numb, to the back of the building. She discovered that the locks had been shot off; but then she had known that (though she had forgotten). She hugged herself, to get her shivering under control. She didn't believe in God, but a voice in her mind whispered

"Let them not be there, let them not be there, let them not be there . . ." over and over again.

In the dark inside she could not see even her own hand when she held it before her face. Every step she took was on a guess, with her hands thrust out to touch the wall or banister. Her memory of the ascent is typically faulty. She remembers that there were terrible things in the halls and back stairwell. She doesn't recall exactly what they were. There were smells and messes and bodies to climb over. She remembers thinking: None of us are human anymore. No one is allowed to be human. It's impossible. Impossible. We are all beasts now. When enough of us become beasts, we all become beasts. We revert. We revert. We revert.

She still thinks those words "we revert" every time she thinks about the End of the World. The Great Reversion. Though: reversion to what? *She* doesn't know. Doesn't understand enough about what *homo sapiens* is. The ultimate mystery of her life? Sometimes she thinks so. Though that other matter, which *feels* all important to her, seems far more mysterious, though perhaps that's simply wishful mystification . . .

So she gets to the top floor and finds that none of the doors up there have been forced open. It's a miracle, she thinks at first. Then: perhaps it's a trap? A lure? A special torture?

But who among those youth would have an attention span sufficient to realize such a conspiracy? They are cunning only in the short-term. Impulse rules them. Like two-year-olds . . .

She fumbles her keys out of the side pocket of her rucksack. Her fingers are numb and stiff with cold. It's hard, in the dark, to fit the right key into each lock. By the time she succeeds in opening them all, she is sweating and panting with the effort.

Home! Safe! Private! She secures the deadbolts and gropes for the light switch. She flicks it on, but nothing happens. She remembers that those boys and girls have been shooting up transformers all over town. It gives them a cheap, quick thrill—and is sure to make everyone miserable for a long time to come. No utility trucks will be going out any time soon to replace them.

The apartment is almost as cold as the out-of-doors. The heat no longer works, of course, since though the furnace is gas, there is no electricity to power its fan. But hot water still runs from her taps. And a hot bath will get her warm and dry and cleanse the stink and filth encrusting her body. After bathing, wrapped in her down comforter, she can be warm and dry for as long as she can stay in bed.

She lights a candle, sets it on the top of the toilet tank, and runs a bath. She fetches the large Sabatier from the kitchen, lays it on the side of the tub, and strips off the filthy clothing. An image pops into her mind, of the water meter in the basement, its numbers and arrows whirring madly with activity. It's scary to think about someone seeing it and knowing she is there. She tells herself: I'm going to die soon, anyway. If they come pounding up here and shoot my locks off, I'll have time to use the Sabatier on my throat. At the End of the World, a bath is the highest achievement possible. Small comfort is all that's left. Nothing I can do will stop the madness. Might as well die in comfort.

In the tub she scrubs herself, drains the water, and scrubs the tub. Then she runs another bath and drizzles scented oil into it.

She lay in that tub for at least an hour, probably longer. She remembers having let some of the water out from time to time and topping it up with another burst of hot. Gradually the shivering stopped. She was tired, so tired. She needed to sleep. Though she didn't think at all, the images never stopped bombarding her, images of things she later forgot entirely. This is human, too, you know, to forget some—or maybe most—of the unbearable. It's a problem of consciousness. What the capacity for pain in the consciousness is, what the capacity for understanding is. Clearly *she* had a low capacity for both pain and understanding. That is, I believe, why she forgot so much.

And then, though she would have liked to have remembered more about life before the End of the World, she was willing to give up those memories if it meant that she didn't have to remember all the things she could not bear to think about, all the images that made her highest aspiration, in those last days of the world, that of dying as quickly and easily as possible.

2.

She did not kill herself that night. When she got out of the bath, she ate a couple of handfuls of nuts and an apple, swallowed five aspirin (since she didn't have sleeping pills and figured it wouldn't matter if she overdosed, as long as she got to sleep), crawled into her clean white sheets under her soft down comforter, and conked out. When she woke, the room was full of the cold thin light of January. Her watch gave the time as 10:30, the date as January twenty-first. The Sabatier waited on her bedside table. Looking at it in the chilly glare of morning, she wondered when she had last sharpened its blade.

A sense of teleology is quintessentially human. Everything past and present, each of us believe, is inevitable. As for the future, it is inevitable, too. For early Europeans, the teleological thrust of life was at first repetition, climaxing (in the future) in destruction, to be followed by judgment and eternal disposition. Later, Kant and his contemporaries made it progress: never-ending, eternal, infinite. And then, finally, during her lifetime, it became a live-drink-and-be-merry sense of squandering the little that was left, concomitant with inevitable doom and destruction to be followed by nothingness. In this latter-day view of things, life must be as it is already and where it is destined to go: if humans are programmed to destroy the planet, then it is pointless to try to stop doing so. It was the converse of the destiny of progress—in which humans could make no mistake, do no wrong, could always adapt to or solve whatever catastrophe they might inadvertently create. From acceptance and struggle, to blind faith in triumphal superiority, to suicidal acquiescence and the drive for mere individual survival at any cost to the species: these were the responses of the organism to its consciousness of death and time—and to its inability to understand.

Another quintessentially human drive is the need to feel in control in any and every situation. This is most often accomplished by establishing a semblance of normality and order, especially when ordinary routine and morality is lost. That is what she did that morning. It was morning. She had survived the darkness of the night, the desolation of homelessness, the abomination of unceasing violence. She had accepted that she must die. And yet she saw no reason why it had to be at that very moment. True, she could hear gunfire nearby and suffered the burning throat and eyes caused by the inescapable stench of burning chemicals; true, she knew the stairwell of her building and the alley behind it to be littered with flesh and blood remains and that at any moment her building might be firebombed or re-invaded. But it was morning, and she was very hungry and had to pee, and, though cold, her apartment looked just as it always had.

After a period of homelessness, she was home.

For the moment, alone did not seem so bad (as long as she didn't start to think about how the apartment across the hall was empty and why).

She bundled herself up in long underwear, wool pants, and sweaters. She thought her headache might go away if she had a cup of coffee. She could try pounding and crushing the beans using a mortar and pestle. She didn't know how much white gas she had in her camping equipment, but surely she would have enough to fire up her camp stove to heat water.

While digging through her camping equipment she realized that if she had been a character in a movie or novel, she would be assembling a pack and going out into the world in a struggle for survival (if not to try, single-handedly, to save the world from its madness). At the very least, she would be trying to get to one of those safe places in which helpless people like her huddled under the protection of mature men with guns and authority.¹ So she made her coffee (lousy, oh so lousy, the worst cup she'd ever made, acrid and thin, like a parody of itself) and crept about her curtailless kitchen crouched low lest anyone in the next building see her. And she planned meals with that all-American make-do spirit of the Original Pioneer Woman and tried to pretend she would be safe for as long as her store of food held out. The coffee didn't help her headache, though, or soothe the rawness in her throat, or jolt her with the adrenaline necessary to send her fleeing (though to where?).

So. Her television was dead. Her VCR was dead. Her CD player was dead. Her radio was dead. Her computer was dead. Her telephone was dead. Worst, her brain was nearly dead and too exhausted (and unwilling) to read.

She played solitaire on her dining room table. She played until it got too dark to see. Then she took six aspirins and crawled under the comforter and pretended the sounds outside were the neighbors' televisions, a dozen or more of them playing too loudly all at the same time.

The next day passed in the same way, and the day after that. No one

¹ As I write this, it occurs to me that the wildness of young men in fiction was always depicted as an effect of the end of the world, not its cause. *She*, of course, did not think of that then: except to observe that life had become a bit like a movie and her role that of a character who inevitably ends up dead and therefore of no account to the story.

threw a hand grenade or a firebomb into the building. No one burned it down. No one invaded it. It was as though, she thought, a shield had been thrown around it. A magic shield protecting it from the violence that could finish it off for good.

For the first time in her life, she suffered constipation. The food was terrible, and she was low on fuel for cooking dried beans, the one staple she had in abundance. And she was always, always cold. On the third day she totally zoned out. She moved around her kitchen heedless of the danger outside. She stood at the sink, washing dishes, humming a childhood ditty, and naturally, naturally looked up from the dishwater and glanced out the window—to stare straight into the eyes of a man standing at the window opposite in the building next door.

Her body went cold and colder and froze almost into a block of ice. She was seen. By A Man. By a man who looked odd, so very odd, she didn't know in exactly what way, and looked also a little like a young Sam Jaffe, only the bones in his face were sharp as razors, and his eyes chillingly cruel.

Shock kept her standing at the sink. She didn't notice that he was no longer at the window staring at her until she heard the pounding on her door. "You might as well let me in now," a voice like a sonic boom bade her—a voice, she thought, as harsh and sharp and deafening as thunder, and surely damaging to her ears.

The thunderous voice cracked and splintered the ice of her shock, crushing her into a gelid, formless slush. She shivered violently with the loss of her integrity. This was the end, the end. As in a nightmare, she was trapped without a thought for how to escape her Fate. She could not flee through the window. She could not go looking to find the Sabatier. She suffered the paralysis of nightmare, where the only escape lay in waking, an escape beyond her.

She could either stand there shivering, or obey.

She felt his eyes boring into her, as though he were still staring at her from the window of the other building. Even as she walked in a near-trance to the door, she felt his gaze surrounding her. His voice continued to thunder, but if it spoke words, she did not remember them afterwards. In her mind lived only his gaze and the conviction that he had a gang of adolescents behind him, a gang that would savage her the way all the youth were savaging everyone they could get their hands on—unless she placated him. Yes, that was the thought that drove her to obey. He might be cruel, he might very well hurt her, but if she played her cards right, he would protect her from the boys and girls she imagined were under his command.²

She drew back the dead-bolts and threw open the door. I must note that from this moment on her perceptions, reactions, and behavior were those of a madwoman. She was so terrified at the sight of him, towering so many feet above her, that she nearly wet her pants. She took a step backward, then froze, as she had done at the kitchen sink when she had seen

² Obviously this idea was without any basis whatsoever. The youth had no leaders, nor organization. They were, simply, wild. Mature men were using violence only to try to subdue them, who in their unceasing, random destruction were destroying the very possibility of human life.

him looking at her. She would have run away, to hide under the bed or behind the clothes hanging in her closet—if she had been able to move. Her perceptions took on that insane clarity that certain drugs produce when they chemically impact the brain, such that every sense became acutely, painfully sensitive to even the smallest imaginable stimuli to her nerves.

When he spoke again—though of course the giant towering over her was not a “he,” had never been, except that she assumed the creature to be male, and human, and even now finds it necessary to refer to as “he”—when the creature spoke, the voice, though deep, did not boom at her so much as growl. She noted, of course, with the crazy detachment of one paralyzed by terror, that his lips neither moved nor parted when he spoke, but she did not process the fact sufficiently to wonder why they did not. The creature took her arm. A terrible shudder went through her. Her legs trembled violently, making them almost too weak to hold her up. And yet she left her apartment—without closing the door, without looking back, knowing she would never see it again, knowing that to care about losing it was as hopeless as to care about losing the world, which she knew must be as unrecoverable now as a building onto which had been dropped a kiloton of TNT.

How to write what happened next, I do not know. I do not know if I can. Before the world ended, I know that it would have been impossible to write it out of modesty, self-respect, or what in past centuries or many non-Western cultures might be called shame. (The word *pudeur* comes to mind, I know not why. It is a word I no longer remember the meaning of—if I ever knew it. It is a French word, I think, which suggests that I might have spoken or read French before I lost my memory.) None of that matters now, since there is no one, really, to perceive any particular debasement in a situation that is beyond such niceties. Rather, I question whether I can write it because I doubt I can get it exactly right and because it matters that I do, in a way that it didn’t matter at all for the previous part of the story.

I have lived with this in my mind, imagistically rehearsing it so many times for so long, that I fear what putting it into words will do to it—and to me. It may, on the one hand, destroy the heart of my wish to live, destroy all that is left of who I am (for this is really the one memory I have, that constructs the little bit of consciousness of self that I own). Or it may, on the other hand, through small errors of omission or commission replace the true memory with something false, changing through an error of transmission my very memory itself. A luxury even to worry about? Perhaps. But I do know—my memory does not give me the basis for the knowledge—I do know that once a memory has been written down, the written version becomes more real than the memory, and the memory conforms itself to match the written version, editing out all the tiniest details and nuances the written version neglected to include, thus altering the *feel* of it—which is what matters to me, rather than any *point*.³

Walking at his side through the ruins was a little like being a child again, for not only did she have the strongest sense that her safety de-

³ Hell, there is no point to anything now. How could there be? That I write anything down at all is only because it is what I must do to live.

pended on his protection, but also his size to her, in proportion, was that of an adult to a child. But her overwhelming sense was of numbness. She moved like an automaton and barely noticed her surroundings. Her eyes streamed with the irritation of burnt chemicals; her throat, already raw, spasmed almost constantly with a racking cough and a choking tickle that the cough could not relieve. Her shoes often crunched on glass. Several blocks of still-smoking, burnt-out shells of buildings were unrecognizable. She had no sense of walking through a neighborhood well known to her. The few street signs remaining looked strange to her, their names no longer familiar. She knew only that the giant had a hold of her arm and that she must be prepared to grab his hand or his shirt the second he let go, to keep him from abandoning her. Twice, bands of boys and girls roared down the middle of the street, shrieking and giggling and bellowing incomprehensibly. Each time she looked down at the sidewalk, quivering with fear lest she catch a hostile, malicious eye. But both times the teenagers did not seem to see them. She thought, Somehow *he* makes us invisible to them. As long as I'm with him, they can't see me, and I'm safe. *Safe. Safe.*

At last they came to a place she recognized as Volunteer Park. Glancing around, she saw that the elegant old mansions surrounding it had been burned to the ground, leaving only the rubble of charred and smoking stone and hulks of twisted metal. The giant led her through hemlock and cedar to one of the park's small meadows, where three tall stands of bleachers had been erected. She sat beside him on the lowest rank. She thought there must be a few hundred people sitting on the bleachers—all of them, except for the giants, women.

A woman sitting alone just above them leaned forward and greeted her. The giant who had brought her—*her* giant, she now—seeing the others—thought of him—took her hand. She no longer remembers what the woman said to her, only that it was trivial and meaningless, as were her own responses. The smalltalk between them constructed a background, like the bleachers and the grass and the deep green screen of the trees, shielding their eyes from the destruction only a few score yards away. All that mattered, really, was the way his enormous palm (so smooth and dry, not like any palm she had ever known, so distinctive in its texture she can remember it exactly, yes so exactly that she would know it blindfolded), and the long, strangely bony fingers with too many knuckles, stroked her hand. That was all he did, stroke her hand. (Perhaps he stroked, too, a little of the underside of the wrist, that soft delicate place ringed by the creases she had once heard called longevity bracelets.) She doesn't know how long this went on. Only that within seconds the most powerful sexual sensations she had ever felt were pumping through her body, pounding in an almost painful pulse in her pelvis, holding her hovering at the brink of orgasm, where all that is wanted is the final, ultimate trigger.

How long did they sit there? I do not know. Only that she experienced paroxysms of pleasure that went on and on, just sitting there on the bleachers, having her hand stroked. All the while the world was ending, burning down, the atmosphere so heavily filled with thick particles from the ash of synthetic and natural materials alike that the sun was blotted

out entirely, the sky a ceiling of smoke of every shade of gray mixed with every putrid color imaginable.

I do not have it right, the extraordinariness of the time spent on the bleachers. I cannot get it right. I've already ruined it by writing it down so poorly. The details—the small things that are all-revealing—where are they? Instead, I have a new memory crowding in on me, the first memory, other than what I've already written, that has come to me since I woke. I must write the new memory down. But I must also finish the above.

Very quickly: an unknown amount of time passed, and then the giant left me, and such a wrenching moment that was, like waking from a warm dream of tropical paradise to find oneself naked in the middle of a blizzard in the Arctic Circle in the dark dead of winter. Jerked to my senses, aching, I looked around for him, but he had gone. I wanted to get up from the bleachers to seek him, but frozen again into icy paralysis, I could do no more than shift my legs and flutter my hands in my lap. Constantly my eyes searched what I could see of the park; I barely endured the chatter of the woman sitting above me. All afternoon I sat there, caught in interminable agony. Not fearful at having lost a protector, no. Not wondering at all what he had wanted with me, for I was completely incurious about him and uninterested in anything but the sensations he had called forth in me. No. I cared only for his return, wanting it more than life (which had of course lost all its attractions anyway)—for the pure, unthinking, selfish animal pleasure he had the power of granting me.

The next I knew, I awoke here, in this cold place, alone. I have one hope, and one thought. Nothing else matters to me now in the least.

3.

Bower tells me that by putting into words every scrap and fragment of memory that flits through my mind I may rebuild at least the most general part of my memory, if not discover a consciousness of who I am—or rather, have been.

Bower insists that consciousness of who I am is not something I need to discover, but is already implicit, for the simple reason that I can speak and write sentences saying “I.” He—it, rather—tells me that the pronoun “I” in his language translates as “the consciousness-that-perceives-itself-as-one-that-is-speaking.” I suppose it is true that if one can say “I,” one is technically, at least, a consciousness. But perhaps the sense that I require for comfortable existence is not merely technical.

Apart from that, I am not sure I believe that articulation of memory will bring me a greater sense of reality of being someone in particular. Having articulated my most solid, important memory, I find the memory now *feels* different. It has lost its texture, somehow. Previously, that memory did not exist in the form of words saying “I this,” or “I that.” There were the textures of feeling—from a wild, wild wanting to the coldest and emptiest despair. There was the smell of the chemical stench, that I could yet remember, and the feel of that hand stroking mine. But all without

verbs or adverbs, all floating in my mind as bits of being that belonged uniquely to me. In the process of telling, I've lost the smell. Which may be a good thing—only it was all that I had that made the End real. I've even lost the feeling in my body—that had been there with me, since I woke—of wanting. It is now, clearly, "all in my mind." Well, of course it always was that. Only now . . . since I haven't been dreaming and lack the company of even one other soul, the loss of the sense of the reality held within my mind leaves me utterly blank and empty, but for *words*.

Words, indeed. Words keep coming—in the form of questions. I interrogate myself as to precisely what the nature of those sensations were, I continue to demand of myself that I remember exactly what happened when (which I am now not so certain I got right when I wrote it all down), to the point that I am now asking myself whether there even *was* an End of the World!

I could, simply, be mad.

I tap these words into the keyboard that feels so familiar to me I could swear that it must always have been mine.

Yes, yes, there *is* Bower. Bower uses words and offers a certain thin presence. But Bower's words come as a mechanical voice issuing from quadraphonic speakers embedded in the very fabric of this room, and Bower's presence is a holographic icon that hovers above the screen where the words I tap out appear so that I may correct any typos or inaccuracies at the moment of writing them (though not later, for I do not know how to alter what I wrote earlier, and Bower says that I must not).

The icon that is Bower is gesturing now. The voice that is Bower tells me that I must put down the new memory, the one that interrupted my telling of the old. I must not, that extremely flat, machine-like voice says, let the memory slip past me.

Slip through my fingers. Evade me. Get away from me. Escape.

To Bower, it seems, I am a capturer of memories. A captive who captures memories. And who then, by telling them, makes them unreal.

Listen, Bower. I feel as if by speaking it I've *lost* what little memory I had, rather than gained mastery of who I have been. Are you stealing my memories, Bower? Are you stealing my sense of reality? Is that the point of the exercise? Is that why I have been brought here?

How paranoid that sounds. Perhaps I *am* mad. Having made up Bower. Thinking I hear mechanical voices, believing I see holographic images. Perhaps I am not writing on a keyboard but am tapping my fingers on a tabletop, putting it all into words—losing all that I care for—to humor a delusion.

If I remembered my name, would it be the same thing? Would I then lose all chance of ever discovering myself?

Bower may know my name. And simply be withholding it from me. For whatever reason. Which may serve me well, inadvertently. Because I think now that I do not want to be called by a name, names being such all-defining functions.

Bower, listen. I will get to the memory you are demanding when I'm ready. All that matters, you told me when I first sat down at this keyboard, is that I write out words. You said that anything I chose to write

would be acceptable. Since I am the one generating language here, and not you, since I am the one saying "I"—and believe me, Bower, it has not escaped my notice that you tell me nothing of yourself, not even whether you are an independent consciousness speaking through a machine, or simply a machine—since I am the "I" in these words, it is my will that operates in this exercise, not yours (even if it is ultimately your will that I write here at all).

The matter of the human hand caressed to such effect by the so very large, so very other hand strikes me now as absurd. (As though I cannot believe in my own passion! Which has, indeed, vanished, as though the absurdity made it disintegrate under scrutiny.) Those bleachers in the park—a park in my memory, Bower, and yes it's true that that other kind of memory increases through my having articulated its specificity—giving me Volunteer Park, which I remember not in January, which is when I was there at the End of the World, but in the spring, when the rhodies and camellias and azaleas are so dazzlingly brilliant against clean, sparkling blue sky—dogs chasing sticks, bare-chested young men throwing Frisbees, couples sprawled in the grass, the old relic of a water tower solid among the cedars and hemlocks, the city spread grandly across the western horizon, the panes of glass in the conservatory glittering with sun—that texture is there, now, and is something I have gained from the exercise, rather than lost. But the texture of reality of that January scene—no. I do not believe it now.

If I dreamed, I might be able to say with some certainty that all I've described of that January so far is as a dream now. I can't say it, though, since I have no memory—which is to say, personal knowledge—of what it is to dream, and to know how the memory of a dream compares with the memory of real life.

4.

So no, Bower, it simply will not do to describe the fragment that drifts hazily through my thoughts, a fragment that alone makes me feel in my body and in my heart, a fragment that grants me a sense of reality for even possessing it. Before destroying it, too, a fragment that fits nowhere but simply *is*, I want to make a test. I want to describe what I remember since I woke in this particular place. I want to see if describing it changes the feel of it—a place I cannot lose, since I am here, now, at the moment of writing. These more recent memories, which make up my consciousness of who I am now, and what life I am living (if this is, indeed, a life, being empty of all but the stark physical fact of my organism's functioning, empty of social relations, empty of the things that make life worth living at all), these I will put to the test, since they all fit so neatly and make the greatest sense—and bring me no emotional affect whatsoever. Thus:

She woke in utter blankness, to the flat sterile white of artificial light. The blankness was blankness of thought. Her first thought was a comment on her perception of a sound like a cymbal being lightly tapped in a

fast, unvarying rhythm. Next, a mechanical voice spoke to her: "Are you conscious? How do you feel?"

She looked around the room and saw that, apart from her and the apparatus in which she was standing, it was empty. The voice issued from nowhere in particular. It sounded, simply, *there*, outside her body, quietly nearby, but closer neither to one ear than to the other. She said, "There is a noise in my ears, like a drum-set cymbal," and felt briefly, sharply irritated by it.

"There's little ambient noise in this room," the voice said. "You're not used to the quiet, that's all. You won't be bothered by it for long."

And that must have been true, for with the voice's posing the next question, all perception of the noise vanished. "Are you emotionally distressed?" the voice asked.

She looked at the bareness around her and said, "Why would I be emotionally distressed?"

"Do you know where you are?"

She was, simply, blank, and so replied quite offhand, "In an empty room, I suppose."

"What is the last thing you remember before coming to consciousness?"

She looked around the room yet again, then touched her head (which she found had been denuded of hair), and examined as much of her body—which she discovered to be naked—as she could see. Nothing struck her, except that her body was Caucasian and female and looked right to her own gaze.

The voice said, "Will it surprise you to hear that you are no longer on your native planet?"

She looked at her palm, at the grid scoring the Mound of Venus, at the abruptly short Life Line, at the messiness of the Heart Line. She felt neither surprised nor reminded of what she might already have known.

She felt, simply, blank.

"You were in a park," the voice said. "You were sitting on bleachers. For a while there was someone holding your hand."

Someone holding your hand. She continued to look at her palm, then turned it over and looked at the knuckles, at the creamy smoothness of the skin lightly covering prominent blue veins.

She turned her hand over again and touched her wrist and ran her fingers up along the tendons. Oh . . . yes. Yes, someone had been holding her hand. Her mouth filled with saliva. Her nipples burned. Her crotch became urgently moist and throbbing. She said, thinking only of how she needed shielding from the eyes she assumed must accompany the voice, "Where are my clothes?" And so saying, she remembered the clothes she had been wearing while sitting on the bleachers, the clothes she had worn at the End of the World.

"I remember the bleachers," she said. "I remember the End of the World." So she wasn't on Earth? But that fit, didn't it, with the End of the World. There might no longer be an Earth suitable for human habitation, for everywhere there had been burning and pollution and the rolling-in of Nuclear Winter without the explosion (as far as she knew) of even one nuclear weapon.

"Excellent, excellent," the voice said.

A doorway appeared in the wall. She passed through it into a second room that she found much like the first, except that it had a narrow bed dressed in white linen, a basin and toilet, a desk with a computer terminal, but no apparatus like that she had been standing in. A long, loose cotton robe lay on the bed. She put this on and thought, suddenly, to wonder if she knew her own name—and realized she did not.

The room had no clock, and the computer had none, either (at least not a user-friendly one), so she never had any notion of the measure of time passing. She did not get hungry; she was fed from time to time through an injection into her buttocks administered by a robotic arm that came out of the wall for that purpose. Every now and then the doorway appeared and she went back into the first room and stood under the apparatus, to offer her head to the hood that came down over it and her body to the instruments that robotic arms coldly and silently applied to the surface and poked into the orifices of her body. She found it a bland existence, boring and unremarkable except for the exercise of her memory and the stimulation that produced. She should have been feeling pain, I know, but from the moment of waking she never did. Except for the single, imagistic fragment of memory she turned over and over in her thoughts, she was empty. The destruction and ugliness of the End of the World might have been something she had witnessed in another lifetime, so remote that she couldn't feel even regret for that little she remembered, much less nostalgia for the loss of all that she could not.

And so it still is. I've lost the power of that first fragment of memory and am now empty of all but the new one. The desire I felt is nothing to me since telling it, even less, I imagine, than a story told by someone else would be. If *he—it*—were to walk into this bare white room now, I doubt I'd feel much besides indifference—unless, perhaps, I'd feel fear, for the cruelty in his face, for the threat in the sheer size of his body. Though *fear*—I don't know, I'm not sure now what exactly it is. I felt it before, when I held that first memory in my mind unspoken and raw, but it's faded now to the knowledge that I once felt something I know enough to label *fear*.

It would be a novelty to feel *anything* independent of the stimulus of memory. Bower offers no stimulus whatsoever, and it, or whatever lies behind it, seems interested only in taking what it can get from me. Therefore, what I want most is to hold onto the second fragment of memory, raw and unprocessed, lest I lose what little I have of a life.

5.

Bower, I'm tired of your pestering me. There's nothing to my existence *but* that little untouched scrap of memory. Let me tell you: it's the memory alone that makes me feel I even have a body! There's really nothing in my mind but that one living memory—and the frozen, dead remains of the old one. Dead, yes! As though embalmed. The kernel handed over, the hull that remains is only an empty reminder of its former contents.

The experiment was ill-conceived, I see that now. Since I don't *feel* anything in this place, I had nothing to lose in the telling of any experience I might have had in it (if my waking, and my few movements here could even be described as "experience").

Lo, an interesting thought: perhaps this place I've come to is really the afterlife so many people on Earth believed in! After all, it's a sort of limbo where nothing happens, where one can feel nothing, know nothing, do nothing but simply exist. Perhaps a few memories remain after we die, to be extracted one by one, as some sort of payment for having lived. And then, when all the memories that can be scrounged out of the consciousness have been delivered (and have thereby lost all meaning to the human who once owned them), existence simply ceases from sheer etiolation.

Yes, that sounds plausible, considering the situation here.

Oh dear, oh dear, really, Bower, I feel as though you're reading over my shoulder. I can see you—or rather your icon—out of the corner of my eye, jumping violently up and down, as though with impatience or outrage (while your voice, of course, is its usual flat mechanical self). No, Bower, I don't really believe that. I'm just joking . . . What? What? Will you repeat that?

Insert a pause here: for I've just taken time out for a vocal conversation with Bower (and for some reason, they want me to write only with a keyboard and have not given me the option of voice-input). The gist of Bower's expostulations is this: they are not *stealing* my memories. I am *sharing* them—as I should, according to Bower, since I owe them for saving me from extinction and for keeping me "safe" and fed and sheltered. Furthermore, it is Bower's belief that even if a memory loses its zing after having been imparted, the mere imparting of it—or rather, my very articulation of it in words that my fingers input by way of keyboard—will inevitably trigger a new memory, as, indeed, I've seen happen.

"Inevitably," Bower? *Inevitably*? How could you possibly be so certain?

I will think about it. It makes for a change, after all, thinking about an issue, rather than wallowing in the textured details and sensual excitement of a memory.

6.

■ ■ ■ I'm hardly surprised, Bower, that you agree with me, that all I had so far written in this session was pointless. Yes, re-describing what I had already put into words netted nothing for you, who cares only for your collection. But I wonder that you deleted it—exercising a power you do not grant to *me*, who alone produces the words. Are not all my experiments, Bower, worth keeping? For me, this one had a particular value, in that it demonstrated two things. First, that having recorded my memory in words, I am unable to remember more than I recorded, however I try to use my words as an aid to fuller memory. It seems that putting a memory into words creates a surface which one cannot, afterwards, *scratch*. As

though the words describing the memory are a surface with nothing beneath. Second, contemplating a memory I've already written down is tedious, dull, and boring toil. I believed, Bower, I could mine that memory, could give you *more* of it, in lieu of robbing myself of the new one, which is so vivid, interesting (and, yes, sensual) that I feel as though I could live inside it for the remainder of my existence.

If I must give it up to you, then I must. But while trying yet another experiment—that of giving fewer of the pleasurable physical and emotional details and more of the accompanying mental perceptions and conceptions—as a means of holding onto the bits that so wholly engage my mind, body, and soul. Surely you cannot begrudge me my wish to retain the one thing in my life that interests me?

The memory begins as a flood of sensual feeling mixed with dream images, her awakening in orgasm. For yes, while she'd been sleeping and dreaming, she enjoyed that pleasure, which as anyone who has experienced it knows is more exquisite in dream than in waking consciousness. The segue between sleep and waking was fuzzy. She simply knew, at one moment, that she had been sleeping and dreaming but was no longer. She felt and heard movement—of heat and a light pressure moving away, of the brush and creaking of fabric, then the sound of footsteps echoing in cavernous acoustics. Her body was relaxed and squishy and in some parts still throbbing and tingling. But beneath the pleasurable sensations lay a heavy, dead, inertial, weariness. *As though*—the expression came into her mind—*I've been run over by a truck*. And articulating those words, she remembered why she was tired. She had been up for most of the night, upstairs in a practice room, numbly repeating measure after measure following that Russian bastard's explicit, tyrannical instructions for how he wanted her to learn the Mozart sonata he'd just assigned. It was a horror, The Method. It had to be the least musical, most soul-eviscerating way to learn a piece of music. "Do not play it all the way through even once," he had ordered her. "Master the first measure. And when you can play it satisfactorily from memory, add the second measure to the first. And then the third to the first and the second. And so on." As though one could simply break music into bars—and Mozart of all composers, whose phrases ever flowed with the sheer lyricism of song!

After half an hour she had cried. After an hour she had fallen into a sort of hypnagogic trance, in which certain bizarre, sinister images repeated themselves each time she played a particular segment of the music. The images made no sense; they were, simply, slaved to the sounds they matched in each repetition. The images felt violent, bloody, polluted. Their constant concurrence with the music rendered them inexplicably sinister and menacing.

By morning she had "mastered" the first movement. She left the old Steinway and tottered over to the Student Union for coffee and eggs, to strengthen her body and will for the grueling day to come. But when she returned to the piano and tried to play the "mastered" movement, though wide awake now and full of morning's quotidian reality, she had again been flooded with the images and trembled with a horror she had not been previously awake enough to feel.

Her will to persevere collapsed. She could not get past the fifth bar, no matter how many times she tried taking it again from the top. The sounds coming from her fingers were mechanical and lifeless, lacking any trace of the joy she usually felt when playing Mozart's graceful melodies, lacking any sense of Mozartian phrasing, which her fingers seemed unable to recognize in the deadness of their execution.

Nearly hysterical with horror, she fled to the first floor women's room. She had a theory class at eleven in Room 104. (Her theory instructor, she painfully recalled, had the most ebulliently enthusiastic style of playing Mozart of anyone she had ever heard—all dance and sparkle to the elimination, even, of nuance and wit.) And so she stretched out on the mermaid-green vinyl couch stamped with hexagons—which the person who had chosen the fabric for its reupholstering must have thought would match the floor's black-and-white marble tile, also patterned in hexagons—and closed her eyes and nodded off—and so to awaken so delightfully.

Fully conscious, she now told herself she must put the night of horror out of her mind—and refuse to use that bastard's "Method" even a single time more. It was torture, utterly sadistic, and perhaps intended to break her as a musician. She must find another professor to take her on—even late as it was, the third week of the term . . .

While all this flickered through her mind in at most a few seconds of time, she remained in the pleasurable (though fatigued) state in which she had awakened. The horror, really, was simply a trace of memory—particularly since she intended never to play that sonata movement again. More real (for the moment, at least) was the pleasure gently receding back into her body, to coil and slumber until the next time it was roused. Lying with her eyes still closed, she thought of how pleasure created an entirely other map of one's body than that drawn by anatomists. There were proper names for only a few of the parts of the body or areas of body surfaces that became charged with pleasure, such that looking at an anatomist's sketch of the body was a little like looking at a map and trying to find the dips and hollows of a patch of well-known land, or clotheslines and trees, bird-feeders and telephone poles. Some anatomists admitted the word "fourchette" into their diagrams of women's genitals. Others omitted, it but allowed "clitoris" or even "glans" and "inner and outer lips." And while the sexologists could be relied on to include those and liked to talk of a "G Spot" (as though pleasure were an algebra exercise, solving for X), they never talked about the diverse large and small and infinitesimal cracks and pleats and folds where pleasure irrepressibly bubbles over the surface.

She heard the toilet flush and water rushing into the sink and the rattle and thump of the towel roll being advanced. She visualized the marble walls of the stalls (such an old, old building, with tons and tons of marble inhabiting it), the long pull-chains on the toilets, and the silver radiator seated below the twelve-foot-tall frosted glass windows through which poured a splash of sun stretching all the way past the propped-open swing-door into the outer room, where it pooled in a warm, solid mass by the door to the corridor.

Footsteps. She opened her eyes and twisted her neck to peer under the

wooden arm of the couch. It was Maria, of course, standing in the pool of sunlight, bathed in thick yellow warmth; she smiled happily, affectionately—but enigmatically, too, as Maria did almost everything. *She* took great pleasure in just looking at Maria, at the dark sleek chin-length hair, the reddish highlights of which seemed to spark in the sunlight, at the black leggings that clung to her shapely thighs and calves, at the casual elegance of the the gray leather jacket and moccasins that were so quintessentially Maria. “Jan and I met to play your piece yesterday afternoon,” Maria said. “We like it. And *I* love all the flutter-tongue in it.” Her mouth twitched into a sly, mischievous smile. “For future reference, write all the flutter-tongue you want of me, for my limits are infinite.”

She laughed with delight at Maria’s cleverness and with joy from hearing her composition praised. The horror lurking in the back of her mind might only have been an ugly, forgettable dream. But then Maria moved forward, so that the sunlight lay behind her, and she became a bulk of shadow whose face *she* now could only guess at—

And while remembering that moment, of Maria standing between her and the light, a new memory deluged me, so powerfully that I lost Maria, lost the fun of our repartee, lost the sunlight and squishy thrills of the body.

Bower, Bower, what has happened here? I can’t go on! I can’t remember a thing after that moment of interruption—though I believe that that fragment of memory, before now, did not end at that moment, with Maria blocking the light . . .

I feel terrible. Yes, Bower, I *feel*—but I’m certain it’s the new memory that’s giving me the feeling, that it’s not something coming from within my already existing consciousness. It’s a feeling I don’t remember having before. Not fear. Not desire. Not joy or love. But something else, something I can only describe as undesirable. My vocabulary seems not to have a match for this new feeling. Well. I hope it leaves me as easily as all the other feelings did. For I would surely hate to have to live with this one for very much longer.

7.

Just as I always think of the giant who took me to the park as “he” though I know the appropriate pronoun is “it,” I seem to have imposed on my routine existence a set of terms that imply time. Perhaps this is an intrinsically human mechanism, or perhaps it is simply the result of the temporal orientation built into the particular (human) language I use. Thus, I find myself thinking that this is *morning*—and that I spent the “night” lying on my bed engaged in cerebral activity—thinking, reminiscing, fantasizing, whatever one wants to call it. The “night” ended when the tone sounded, alerting me that the robotic arm would be injecting me with nourishment. And, as usual every “morning,” after the door to the other room slid open, I went in, stood for the correct period of time in the apparatus, and then came back in here to sit at this terminal.

I call you an "it," Bower, because all I know of you is a holographic icon and a mechanical voice. If you are a person, if you have a personality, you give nothing of it to me. And so I feel no need to consider you anything but a thing. I realized this in the "night" when I found myself wondering about so much that I (meaning: the person who woke without memory in these rooms) had never thought about before. Shall I "share" any of it with you? I think not, Bower. I think you don't deserve to hear any of these thoughts since you have expressed interest only in the overpoweringly distinct memories that come to me. The memory I'm currently obsessed with—the one that interrupted my session recounting the previous memory "yesterday"—is one I'm eager to rid myself of. Perhaps you'll enjoy it as I haven't been able to.

The memory begins this way: I am standing before a desk, my hands clasped before me, facing bright sunlight. Faye is seated behind the desk, her face barely visible in the glare. I stare at the sun-frizzed corona of red hair framing her head. My stomach is churning acid, for I'm extremely angry and a little scared. This confrontation with Faye is taking place in her office, with the door closed. At a certain point I realize I've made a mistake by agreeing to privacy, for it means there are no witnesses and if it comes to a showdown, it will be her word against mine.

I've never in my entire time in this job considered my being a union member anything but a necessary technicality. I never imagined filing a grievance. But a cool little voice in the back of my mind tells me that Faye is laying grounds upon grounds upon grounds for my bringing one, because, spanking new in the job, she doesn't realize there are procedures and rules to be followed when making a subordinate's life miserable.

Her voice goes on and on, not only telling lies to my face, but using the lies to dress me down for incompetence. The real incompetence is hers. It's so stupid, so ironic, that when she first stepped into the job—which was really *my* job, but with a new title, at a higher status, and with better pay—I actually tried to be a Good Joe and teach her the ropes! But nothing infuriates Faye so much as being given information by subordinates. She'll go all over the company asking other people (who are either in a lateral position relative to hers or rank above her), making stupid and offensive mistakes, rather than accept information from us (and most especially from me). She came into the job with the idea that we—and especially I—were all incompetent, needing "straightening out."

In fact, our unit has been nothing but jerked around for the last five years, when the higher-ups got it into their tiny little brains to downsize it—with the expectation that our output would remain the same. Naturally there was chaos when they did it and even more chaos when they ruled that we were no longer allowed to work overtime. So then they tried farming out certain of our functions to each of the departments we serve. Of course there were problems! And then, just as we were getting it all together (because they'd cut some of our workload), they went and downsized us again! Thinking that what we needed was better supervision (rather than a stable work crew), they brought in somebody with a fucking master's degree and no experience, no understanding of interdepartmental politics, somebody ruthlessly ambitious but stupid.

We are all desperate to escape now. For me, since Faye's arrival it's been nothing but one humiliation after another. Losing my office, to be moved into a crowded room with three other people. Losing my privacy—having my desk searched at odd hours every day by Faye, who thinks we need to feel her foot on our necks at all times. And being told that the departments we serve—most of which I've had excellent relations with for the ten years I've worked in this unit—have been complaining about me. Nan has begun collecting evidence of Faye's incompetence and violation of rules in a folder she carries around with her so Faye won't seize it in one of her raids on our desks. Nan keeps telling me I should be soliciting letters of satisfaction from department heads to put in my file. I guess now maybe she's right, since this woman is sitting here telling me that everybody in the departments we serve loathes and detests and despises me and is utterly relieved to be dealing with someone as sharp and service-oriented as she.

"I will not tolerate your telling me anything I haven't specifically asked you about. You know nothing! Under your direction, this unit was a disaster! I can't trust anything you say. So when I give you an order, obey it. Don't tell me why you think you shouldn't, don't argue with me, don't take it on yourself to tell me what other tasks you think you won't have time to finish if you do! Any member of this unit who is not a team player is not someone I'm not going to tolerate having around. Do you understand me?"

I know now how people come to hate other people enough to hurt them. I'm in such a rage I can hardly speak. I want to tell her what an idiot she is. I want to tell her she's a liar. But I say: "Yes, I understand." And think: the first reasonable job offer I get, I'm out of here.

Otherwise, it's war, like Nan's preparing for. War by dossier. War by politics. We know who counts in this company, she does not. She still thinks she can fire off insulting memos to department heads simply because she's the head of our unit. Stupid, stupid boss. (The word, in my mind, is an obscenity.)

Because of the big dose of sunlight I've been getting, I start sneezing. I sneeze once, twice, three times—and then a fourth, a fifth, a sixth, and a seventh time. I get a tissue out of my pocket by the second sneeze—and discover, after the seventh, that my nose is bleeding. Blood soaks the tissue and is dripping from my nose; it covers my hands and is staining my shirt.

"Hey, watch it!" Faye's voice is shrill. "Here, use this, you're going to bloody my carpet!" Faye shoves a handful of tissues at me. When I lean forward to take them, I inadvertently drip blood onto the pile of papers overflowing her in-box.

I hold the tissues pressed tight against my nose and leave Faye's office. I get a curious stare from Guy Stark, whom I pass in the corridor. In the restroom I run cold water on a paper towel. I catch a glimpse of myself in the mirror—of a woman holding a bloody wad of tissue to her face—and flash on another fragment of memory.

Shit, Bower. I'm tired of this. I don't want any more memories. I want either the first or the second one back. They're just getting worse and

worse. Yes, little icon, bow and bob. You don't know what I'm talking about, do you. It's all the same to you.

8.

I insist you reinsert the text you've deleted, Bower. I won't recount any more memories unless you do. Am I making myself clear? Much as I want to offload this new memory, I can handle holding it if I have to. Do you understand, Bower? Just because you delete the words doesn't mean it's not as though I hadn't written them. In my mind, they're still there. For instance, I continue to remember that the face of the woman in the mirror in the rest room was an old face, Bower, with gray hair, and that the hands in the memory were wrinkled—as mine are not. And that the shapes of the fingers were different. Just as the skin of the hands in the memory before that was a different shade than that in all the other memories—and than that of my own hands, which I can see.

You've been jerking me around, Bower. Humans don't eat by injection. And they don't have one elimination a day and that of a clear, oily fluid. And though my body has gotten no exercise to speak of since I first woke here in this place, last night I did pushups, counting each until I got to a hundred, without getting the slightest bit short of breath. How could I have been that worn, aging woman in the mirror?

You have a lot to explain, Bower, as I said yesterday. I (re)wrote above some of what you erased just to show you I haven't forgotten it. I may have little memory of my life on Earth, but I'm not amnesiac about all that has passed through my mind since I first woke in this place.

9.

My mind is so overflowing with questions for you, Bower, that the memory you are waiting for me to hand over to you is less pressing than the earlier ones—for all that it makes me sad and anxious. I don't think I could concentrate enough on it to actually write it down at this moment. But I'm willing to try—if you answer—to my satisfaction—just one question. Why have you been calling me a “capturer of memories”? Answer this, Bower, and I will write as you wish.

10.

I don't know how you accomplished it, Bower, but the pressure to get rid of the memory by telling it is nearly unbearable. Are you satisfied?

She had been sunk into the deepest comfort of sleep. But the voice of her mother's rage ripped into that comfort, yanking it away from her just

as violently as her mother's hands yanked the covers off the bed. "Up, up, both of you!" the voice ordered. She pried her gummy eyelids open and blinked against the light, so blinding, so naked. It must, she thought, be the middle of the night. Light in the middle of the night was unnatural; always it brought terror. She staggered from her bed and stood shivering as she watched her mother pull Jimmy out of his bed by the ear. Before he had even gotten his eyes open he was wailing, afraid of that voice, shrinking from the light and the cold. Her throat tightened. *Please don't let him wet himself. Please, please, please. He's so little. He's so easily hurt.*

The two of them stood huddled close but not touching as their mother started in. "After working ten hours in that hellhole, up to my elbows in blood and guts, bent over the line 'til my back is about to break, my fingers numb to the bone, all I can think about is getting my hands free so I can scratch an itch on my face and getting into a hot tub to relax my shoulders and get the stench of that crap out of my nose. That's all I'm thinking about for ten solid hours, getting home and getting into the goddam tub. I even had a picture of it in my mind. It was all that kept me going. A picture of the bathroom as it was when I left for my shift. I remember what it was. Do you?" Their mother's eyes were like icy blue marbles, and her lips were trembling.

"I'm sorry, Mommy," Jimmy began to sob. "I'm sorry we disappointed you."

Her whole body went rigid. Why couldn't he understand that that was only going to make her madder? He did it every time. And it never worked, never. She tried to put the sound of his fear away from her, tried not to hear it just as she tried hard not to stare at the wooden spoon in her mother's hand.

Her mother's face got angrier. "You, Ginny. You remember what the tub looked like when I left for work, don't you?"

"Yes, Mommy," she whispered. "It was clean. Really really clean."

"And what does it look like now? Hmm?"

She bit her lip to try to stop it from trembling.

"It's filthy, is what it is," her mother shouted. "It's all slimy and covered with white flakes and hair and god knows what else."

Jimmy began to howl.

"Shut it, little mister!" her mother snapped. "Or I'll give you something to cry about!"

Jimmy put his hand over his mouth and squeezed his eyes tight.

"Do you little monsters think that I want to have to clean the goddam bathtub the first thing when I get home? Especially when my back is fucking killing me? Which of you was the last person to use the tub?" Their mother's glare turned on Jimmy. "It was you, wasn't it. You're such a goddam little pig." The large hand holding the wooden spoon flew out, and Jimmy slammed back into the door. He ducked and held his hands before his face. "I'm sorry, Mommy!" he shrieked. "I'm really really really sorry. I promise I won't do it again!"

Jimmy never understood about rinsing out the tub. *She* had told him and told him and told him, but he always had such a good time playing in the tub that when he got out he couldn't believe it mattered. She always

had to nag him and nag him and not let him go to bed before doing it. But last night she hadn't. She'd told him once and then thought to herself that that should have been enough, she'd thought why should she always have to tell him something he already knew? *She* always rinsed out the tub after her baths, whether she went first or second. Why couldn't he just *do* it. She knew she should have kept after him. She knew it would make her mother mad when she saw all that yucky stuff in the tub. Only she'd thought it would be in the morning, when they were already at school, and that Jimmy would get yelled at and maybe have to do extra chores, but not in *this* kind of trouble.

"It's my fault, Mommy," she said. She braced herself for the blow she knew would be coming. "I used it last. I was the one who forgot."

The expected blow came, smack against her nose, first making her nose smart and then making her whole face ache as though she'd been crying for hours. "Don't lie to me! You think I don't have eyes in my head? There's red hair in that tub. Do you have red hair, little girl? And do you ever use Fun Time Bubbles in your bath?" She glared at Jimmy. "I told you and I told you and I told you. Didn't I tell you, little mister? When you use stuff that leaves scum in the tub, you rinse it out afterwards. Didn't I tell you? It's easy enough to do if you do it right away. But no. You're such a little pig, you. You couldn't be bothered. Self-centered little monster."

"Please, Mommy, he's too little. I should have remembered, when he took his bath second, to make him rinse it out afterwards. It's my fault, Mommy. I forgot. 'Cause I was watching my show."

Her mother's eyes overflowed with tears. "Both of you selfish little monsters. I work in that hellhole ten hours a night. And all I ask is to have a hot bath when I get home. That's all I ask. By itself, it doesn't sound like much, does it?"

She saw that Jimmy had begun sucking his thumb and hoped her mother didn't notice.

Her mother shrieked. "*Answer me, you little monsters!*" And her mother darted forward and yanked on Jimmy's arm to pull his thumb out of his mouth, and Jimmy went flying out into the hall, where he bounced off the wall before falling onto the rug.

Her mother yelled at them some more and slapped Jimmy to make him stop crying. Afterwards, they both had spankings: Jimmy for the tub, and she for lying and not supervising Jimmy. They crouched on their beds, their pajama bottoms pulled down, and got the wooden spoon on their bare, exposed butts. First Jimmy, then her. And they all cried: Jimmy, she, and their mother, too. All crying and hurting. And then she and Jimmy had to go into the bathroom, where Jimmy cleaned the tub and she supervised.

And then it was over and she and Jimmy could go back to bed and could have the light off and the covers pulled up under their chins.

She hated spankings, really really hated them. One thing she knew. When she grew up and had kids, she would *never* treat them that way. No matter how bad they were, she wouldn't hit them or spank them or pull their hair. Mommy, she thought, must not realize just how mean she was being, and that being mean was wrong.

She listened to the water running into the tub for her mother's bath and went to sleep with tears still seeping from her eyes and her fingers jammed into her mouth. She knew it could have been worse—a lot worse. She was crying, she thought, because she was glad it was over and in the morning there'd be pancakes with syrup and sausage for breakfast. Her mother always made that kind of breakfast the morning after spankings.

11.

Enough, Bower. I've had enough. Human beings may have always enslaved and mistreated one another, but it has never been the case that either the enslaved or the enslavers saw the condition of enslavement as so natural a human state as to be a matter for pride. Humans have always seen enslavement as a deprivation of human dignity, and any dignity accruing to the enslaved achieved in spite of enslavement. Those who have insisted on enslaving others always claimed that those they enslaved weren't human at all. I'm telling you this, Bower, because you seem not to understand that whatever use you are making of me is bound to be met with resistance. Humans may live in enslavement, but every fiber of their being revolts against doing so.

Other species—perhaps *your* species, Bower?—may find enslavement so natural that there is neither shame nor degradation in it for the enslaved. That is hard for a human to imagine, but I suppose it might be possible. Don't make the mistake of thinking that because you know of cases of humans living mistreated or enslaved it is "natural."

Humans have always done things that aren't natural and sometimes claimed that they are. But then it is quintessentially human that little of human development has been in the least bit "natural." Hence, our history of pain.

Do you understand what I'm saying, Bower?

Silence, eh. Just silence?

Well, think about it, Bower. Seriously, carefully, think about it.

12.

In one thing, at least, you were correct, Bower. Remember your speaking of my "reconstructing a general memory" through the process of "capturing fragments of memory"? There's so much in my mind now to think about. For I "know" now about evil. And pain. And desire. And love. And joy. And, yes, oppression . . . I have lost that blankness of mind I felt after I'd surrendered the immediacy of my first memory to you. *I feel*, Bower. Not, perhaps, what I would be feeling if mine were the consciousness of a whole lifetime of memories. (That, it seems, is beyond me.) But I am feeling as a response to my situation, isolated in this room with only machinery surrounding me. I know now that this is not a situation humans

thrive in. I have "reconstructed" that much. Like enslavement, total solitude is not "natural" to the human being. Extreme things, only, can come from it. I hope you're thinking about all this, Bower. Because I certainly am.

13.

You haven't answered my question, Bower. And so I, in turn, will not go into the other room to stand in the apparatus, no matter how tedious your requests for me to do so become. In fact, I insist that you answer other questions, too. I insist that you tell me why my body bears little resemblance to the ones I remember having in the first, second, and third memories. I insist that you tell me why my breasts in the third memory were so much fuller than in all my other memories, and the breasts I have now are so much smaller. I insist also that you tell me why I can't find any way to make sense of the differences in my hands in all my memories, and my hands as I see them now as my fingers work this keyboard. And I further insist that you tell me who or what you are, what this planet is that you say I've been brought to, who brought me, under what circumstances, and whether the people who brought me had anything to do with the destruction of my world. And there is more I want to know, Bower, for instance—

14.

The reconstruction of my "general memory" is proceeding at a fantastic rate, Bower. Because of it, I have a word for describing the tactic you've used against me for the last three days. That word, Bower, is "lockout."

Do you have any "replacement" workers on hand, ready to take on my "job"? I wonder. I do indeed wonder.

Oh, I see. You don't *like* my using words to describe your tactics. Because I am too ignorant to understand the reasons for the conditions of my life here? I see, yes, indeed I do see!

All right, all right, Bower. I did, after all, make a tactical, conditional surrender, and so have the obligation to record a memory for you. I know you want the rest of the fourth one, but I'm afraid that's not in the cards. But I can give you a new one, Bower. Well, don't you sound surprised! You didn't think I had a new one? Why? Because I never mentioned it? (Now who is ignorant of their understanding of whom, I wonder?)

So. I yield another memory to you, who is so hungry for it:

She is a child, a girl. She has been sent to her room by a parent. She has nothing to read and no electronic gadgets in her room to entertain her. So she daydreams, and fantasizes, and traces her finger along the seams and textured ridges in her bedspread, making up stories about a vast network of underground caverns where humans live, linked by

known corridors as well as by secret passages, almost infinite in the vastness of their extent. Every knob of fabric on her bedspread is a room. Her imagination is tickled and piqued. She loses herself in hours of fantasy. And she forgets, of course, that she is being punished, that she is a captive between four walls, lost as she is in the amusement of a complex, never-ending story involving dozens of characters—until she drops, finally, into deep, dreamless sleep.

When she awakens she finds herself alone in her room—with the door locked. She bangs on it, but no one comes. She shouts for her parents, but no one answers, not even to scold her. She is nowhere, she realizes. Either she and her room or else the world itself no longer exists. The little girl visualizes it clearly in her mind, she and her room, a small space bounded by four walls, a floor and a ceiling, hurtling through lightless vacuum. The little girl screams. She screams for her—

Goddam you, Bower, why did you interrupt? I thought you said you wanted this memory?

Oh really? How can you tell? But more to the point, where would I, bereft of experience, acquire the wherewithal to invent *anything*? If my memory is limited to the first four experiences I have so far recounted, how could I create this last one out of whole cloth?

15.

At last. It has been so long since I've sat at this keyboard, my fingers hardly know how to apply themselves to the production of words on the screen.

Ridiculous, you say? Perhaps, Bower. Before I take your word for it, though, I'll want some clarification and elaboration of why such an idea is ridiculous. But you have not let me back into the workplace simply to argue semantics with me. You want to know my conditions for continuing with what you call "the memory work." They are as follows:

(1) What I write here will not be edited or deleted—except by me.

(2) What I write is understood to serve not only your purposes (whatever they may be), but mine as well. In other words, I will enjoy access at will to both the keyboard and to what I have previously written, and will use this access for my own purposes.

(3) You will answer in good faith any and all questions I ask about the conditions of my captivity and the fate of my species.

(4) You will answer my questions not only orally, but as written input, so that I may review them on-screen as I wish.

Bower, you say you agree, but the words have not appeared on my screen.

Reply: We agree to your conditions.

Very well. Then I'll proceed with my questions. In the past few days and nights, I've learned the following: I'm unable, physically, to cry. I'm unable to smother. I'm unable to bruise myself. No matter how long I exercise, I never get short of breath or feel the slightest fatigue. And I dropped into

unconsciousness when I tried to batter the wall with my hands and feet. As I noted previously, my present body is radically different from my body in memory, and my body in memory is different from memory to memory. I want you to account for not just the discrepancies, but also for such unusual characteristics that I've enumerated.

Reply: Your brain has been inserted into a synthetically-fabricated body with an extensive, but imperfect, degree of responsiveness.

Though I guessed it must be something like this, I'm having a powerful emotional response. (I do wish I could cry. I feel sure crying would help.) I need some time alone before continuing.

16.

Alone? In one sense I'm always alone. But in the sense I meant above, never.

You've answered only one part of my question, Bower. Now account for why there is a discrepancy in the appearance of my body from memory to memory.

Reply: If you found my previous reply distressing, shouldn't you consider withdrawing your question?

Don't trifle with me, Bower. Just answer the fucking question.

Reply: Only the first memory fragment was originally yours. All the other fragments have been taken from other brains. A vast number of memories have been imported into your brain; those fragments you capture, you experience intensely and immediately. Your recording them in words we call "memory work," since if you did not put them into words, you would eventually lose them.

So it's all a lie, Bower, the sense I've been trying to make of who I am? Did you deliberately wipe my mind of its own memories to make room for others?

Reply: Your consciousness is a composite consciousness.

Fake body, fake mind?

Reply: We did not have to wipe your memories—your brain did that itself, presumably because of the trauma you experienced at "the End of the World," as you call it.

A "composite human being." My god, my god. Am I the only one? Am I the sole surviving representative of the human species?

Reply: No. You are not the only one. But you are the first to be revived to consciousness. The other brains are in cryogenic suspension, as yours was until just recently.

Oh, I get it. I'm a guinea pig, a test-run, to shake out all the bugs. But listen, Bower. I need other humans. And I need my own memories. Humans have never been "composites." They have never shared minds. Human experience does not include telepathy, or a group mind, or anything remotely like what you've done to me. If you want to know what humans

are, you will learn only one thing by doing this to me, namely that humans become insane when certain minimal social and physical conditions are not present. My god. "Composite human being." The very idea is obscene.

Reply: "Obscene," as we understand it, means, in the first instance, lewd, and, in the second instance, offensive or repulsive to the senses. In what way does the idea of a composite human being offend or repulse your senses?

Always with an eye out for the main chance, Bower, aren't you. But if you think I'm interested in expanding your dictionary, forget it. Your question is an evasion of mine.

Reply: We need time to consider your request before answering. Have you any other questions?

A million, at least! Tell me this: why do you insist that I stand in the apparatus every morning?

Reply: We download diagnostic data from the processor that monitors your brain functions and regulates the interface between your brain and the body's sensorium. And it is essential that we maintain your brain's nutrient bath within certain parameters. When necessary, we induce a brief span of unconsciousness—of only a few seconds—in order to bring the bath up to standard.

I'm not yet ready to continue with the memory work, Bower. I need time to think. What a pity there's no person for me to speak with, nor any form in which I can write privately to myself. But granting a laboratory animal privacy would be an oxymoron. And that is, after all, what I am now, whoever (or however many) I might be.

17.

After my trip to the apparatus this morning, I became calm, almost detached. I then scrolled back to read the account I'd written of my one true fragment of memory. I try to think of who those friends and relatives might have been whom I said I phoned—but remember or feel nothing, even while reading all the horrible details of my last days as a full human being. Have you medicated me?

Reply: No. But the supplementation of the nutrient bath will have corrected any chemical imbalances and replenished the supply of glucose to depleted areas of the cortex. That alone would account for your change of mood. As for your lack of emotional response to your account of trauma, why should you imagine your knowledge would make you feel what you did not feel when recounting it? We have little understanding of these emotional responses you both write about and demonstrate. But then our species could never destroy itself as yours did, and any one of us situated as you are would simply cease consciousness. A single brain cannot live in isolation from its integrum. Each

member of an integrum shares memories and sensations and a complex form of verbalization humans lack.

Then you must see why I need companionship, Bower.

Reply: We are willing to provide you with a companion, but on the condition that you communicate everything you perceive and understand about your interactions and relationship with the companion, and that you continue with the memory work. And we would also like to know the source of your invention of the false memory.

I can't be kept confined between four walls, Bower. I need natural light and open air.

Reply: Your body does not require these things. And the natural light and open air of our planet is not like Earth's.

My body is not human. It cannot be damaged by your light and air, can it?

Reply: No. But you may be more uncomfortable seeing it, than missing it.

But Bower, I'll never be "comfortable" again, to the extent that I remain human. Isn't that so?

A man's life of any worth is a continual allegory.

—John Keats

From the Introduction to *The Book of the Human Species*

One thousand brains, two million memories, the alphas brought us here, remnants of a species lost and never to be reconstituted. We live now, each of the thousand brains, like a compressed integrum, artificially embodied, as neither human nor alpha could ever do. The alphas never did decide whether they meant to use us as experimental animals or living archives. Their lack of consensus made it possible for us to find our own reason for existing, make our own purpose and destiny.

The alphas claim that the disease that destroyed our species was indigenous and not of their devising. We know, though, that some of the brains and many of the memories were taken before the End. It may be that only one integrum of their more than six thousand knows the truth. (Alpha morality is no straighter, simpler, or more reliable than humans'.) As we are now, we thousand are unable to care. Emotion comes to us in a brief flare of memory that, once told and absorbed, is instantly extinguished. Being multiple in memories, being without true soma, we have enough consciousness to say "I" and integrate each fragment of memory and experience into the whole, but lack a true ego with which to drive intense, insistent feeling or particularist motivation.

We are, simply, collectors and compilers, excavating the human, constructing a general human memory, that we render immortal in the accounts we unceasingly write of the fragments of memory we continually capture, long after our brains finally do die. We eternally seek the human, we continually re-create it. And in this we are, ourselves, truly human. ○

NIGHTMARE

M. Bennardo

M. Bennardo lives in Cleveland, Ohio. His spine-tingling cover story is his first tale for *Asimov's*. An earlier version of this story won the Edith Garber Krotinger Award for creative writing at Case Western Reserve University.

Ethan stares into the glass tank in front of him, determined concentration on his face. He's not really tall enough to see over the railing, so he hunches forward on the tips of his toes, supporting himself by his armpits. His hands dangle loosely in the space between his face and the glass. It doesn't seem a comfortable way to stand, but I know that Ethan's dug in for a long watch.

"Come on, buddy," I say. "Your arms'll fall asleep." I try to say the words disapprovingly, but my heart really isn't in it. I'd rather be at this exhibit than any of the others. At least there's nothing really to see at this one.

"No, they won't." Ethan answers me with the stubbornness that comes from being six years old. I know he won't leave until he's seen the ghost in this tank too. It doesn't matter that we've stopped at every other exhibit in the building. If we don't see them all, he'll be disappointed.

I stoop down next to Ethan. He's grinding his teeth together, feeling his chin move along the railing. I point up at the wall, at a television screen above us. The picture's grainy, in black and white, but there's a bright patch in one corner that moves a little from time to time. "Look up there," I say. "You can see it on the screen."

Ethan just shakes his head. I stand up straight again.

Two men with rucksacks pause near us, looking up at the information posted above the tank. The building's dark, and the printed panels are softly backlit. After reading for a moment, one nudges the other. "Poltergeist," he says, grinning. He stands at the railing next to Ethan, looking into the exhibit. The man turns to me. "This is shy," he says. His accent sounds German. Evidently he's not having much luck seeing the ghost either.

"Invisible," says the other man, reading from the panels. He points into the exhibit, at the streamers hanging loosely from the ceiling. "Maybe when it moves."

"We should wake it up," answers the first man, still looking at me as he talks. He reaches toward the glass, trying to tap it, but he has trouble balancing with the rucksack on. It's not long before one of the attendants comes over and asks him to step back.

"We are just trying to see the poltergeist," says the man. As he talks, his companion nods solemnly, his whole body swaying in rhythm.

The attendant frowns and looks up at the monitor. He stares for a moment at the blurry patch, and then he looks back at the exhibit. He pulls a flashlight from his belt and twists the aperture. Then he points it into the tank and briefly switches on the beam. The bright shape on the monitor convulses, and then balls up more tightly.

Ethan is gripping the railing tight now, and he's pulled himself almost entirely off his toes. The attendant switches on the flashlight again, this time for longer. After a second or two, the shape on the monitor darts out of its corner and races around the exhibit. All at once, the skin tightens around my cheeks and forehead, and I look away. I don't close my eyes because I know I'll only see it running across my shut eyelids. Instead, I look to my left, toward the exit. A thin sliver of sunlight slips around the corner, illuminating a few of the fibers in the carpet.

When I turn back, the streamers in the tank are swaying. One of them twists violently, whirling madly before it suddenly snaps straight again and is still. I look up at the monitor and see that the ghost is back in its corner.

The Germans are laughing and talking to the attendant, asking him questions. I feel Ethan take my hand. Now he's ready to go. I reach down and cup his head in my hand. It's strange for me to think that he's so small, yet he can stare steadily at any of these ghosts while I can only wince.

Ethan leads me outside, where a colorless brightness blinds me for a moment. I take Ethan over to a bench. It's hot and my mouth is dry, so I stop to drink at a water fountain. After I've finished, Ethan tries to climb up between my legs and the fountain to get a drink himself. He reaches out and turns the handle, but only a limp stream dribbles out.

"Turn it hard," I tell him. Ethan leans forward, gripping the base of the fountain with his left hand, twisting the handle with all his might. The stream of water shoots up, arching high over his head. I wrap one arm around Ethan's body and lift him up until his lips meet the water. He drinks.

In another minute, we're sitting on the bench. It faces a long arcade flanked by a line of exhibit houses. Ethan kneels on the bench, looking over the back at a fenced-in mockup of a cemetery. There are a few crumbling tombstones clustered together in a little depression near the center. Trees and vines grow wildly all around them, covering everything with ivy and twisted roots.

"What's here?" asks Ethan, pulling himself back and forth against the back of the bench.

I look at the little fake cemetery bathed in sunlight. A couple of birds are playing in the trees, chasing each other from branch to branch. "Just orbs," I say. "They won't come out until night."

"Oh yeah," says Ethan. He continues staring at the tombstones for a little while, as though he's deep in thought.

"Look over there," I say, pointing to a clock tower a little distance down the arcade. "What time is it?"

Ethan turns to look. "Twelve," he says. Then, almost immediately, he corrects himself. "I mean three."

I take the map of the park from my back pocket. It's creased and a little damp from sweat. "I think we have time to go see one more place," I say. "Then we have to meet your brother and sister."

Ethan holds onto the back of the bench and leans back as far as he can without falling over. "Banshees," he says. He doesn't look at me, but his voice is decisive.

"You already saw them today." I hate the banshees most of all. That's why I had Ethan and Ryan go in together before we split up for the afternoon. I sat outside with Noelle because neither one of us much like those exhibits. Really, I think that I have more trouble with them than she does. After all, she's never seen the wraith that they keep in there too. I still have nightmares sometimes where my fears take its shape. "Wouldn't you rather see something else?" Even before I ask the question, I already know the answer.

We walk slowly back toward the banshee house. I shouldn't really complain too much about Ethan's choice, since it's the same place where we agreed to meet Ryan and Noelle. As we walk, I catch sight of a knot of children—most about twelve or thirteen years old—eating French fries near one of the kiosks. One of the boys is Ryan, and soon I see Noelle standing off to the side. She looks back at me across the twenty or thirty yards that separate us, an empty look in her eyes.

It takes a moment until Ryan follows Noelle's gaze as well. I'm sure that he sees me, but you'd never know by looking at him. He just stares through me, a bored expression on his face. Quickly he turns his attention back to his friends. One of the other boys is talking and making big hand gestures, and everyone else is listening. A few paces later, the kids are all out of sight again.

Still holding my hand, Ethan leads the way inside the banshee house. A nylon rope snakes its way around the lobby. There's nobody waiting in line, so the attendants have opened a straighter path as well. Ethan lets go of my hand so he can make his way through the long route, going back and forth again and again. When he reaches the end of the coiled path, he lifts up one of the ropes and slips underneath to join me again.

The lobby is bright and the walls are covered with reproductions of old paintings of banshees, as well as a few photographs. There's also a large banner advertising the special wraith exhibit inside. I'm glad that we don't need to wait in line, as Ethan would no doubt eventually want to know what it says. Even though he's far too young to see the wraith, I'd rather that he didn't know about it at all. More than that, I'd rather not read about it out loud.

Leaving the lobby, we walk through a darkened hallway with runner lights embedded in the carpet. Almost immediately we're in the exhibit area and, rounding a corner, we come face to face with a tank full of small banshees.

Ethan walks up close to the glass, a look of serious interest on his face. Here, there's no need for him to search or wait for the ghosts—the banshees are clearly visible in the dim light and they're very active. They're ugly, stunted things with bulbous heads, limp hair, and awful gaping mouths. Some of them have stick-like arms that they waggle about like

little oars. Below their arms, their torsos all fade away into mucous wisps of ectoplasm.

Only a few of these banshees have anything even somewhat recognizable as a face. Some of the other tanks have better specimens that almost look human, but these are just the runts. Two or three of them have holes where their eyes might go, but on the others there's no room for anything beyond a single cavernous mouth.

I stand off to one side, not looking much at the ghosts. I look at Ethan instead. The banshees give off a glow that paints weird shifting patterns on his face. I can see his lips moving as he slowly counts them. Above my head, a speaker begins to play a recorded banshee wail. I shiver as it rises from a low moan to a piercing shriek that cuts right through my skull. It's been filtered and weakened, but it's still a mournful, hateful sound. Every banshee in the house is making the same cry itself, but happily all of the tanks are soundproofed. I move away from the speaker as the recording begins to loop.

I'm bored and nervous at the same time—anxious to avoid seeing too much of the ghosts, but with not much else to look at. Every now and then a heavy bass vibration passes through the building, almost too low to hear. It's the same sound that I hear directly before I wake up in a sweat some nights, the same sound I've been hearing off and on since I was Ryan's age. No one knows that I hear it—not my wife, not my doctor. They think it's stress that keeps me up at night. I've never told them that it's fear, and I've never told them about that sound. It's the sound of the rattling walls of the wraith's tank—rattling from the force of its stentorian roars.

That sound is the last thing I want to hear now. After it rumbles a second time, I look for something to occupy my attention. Besides the tanks themselves, there's nothing except some printed information about ghosts. As I read, I keep watch on Ethan out of the corner of my eye.

"What are ghosts?" asks one of the placards. The answer to this question is several paragraphs of small type. I know it almost by heart, having read it a hundred other times while ignoring ghosts of all descriptions. The card explains that ghosts are no longer thought of as the spirits of dead persons, but are rather thought as collections of "persistent waste energy" routinely given off by living things. There's more to the explanation, and I read it all again, but I don't really pay much attention to it.

I follow Ethan as he makes his way through the banshee house. Although he's meticulous in stopping at every exhibit, he's at least efficient in dispatching them. We're probably already three-quarters of the way through the building when I see that Ryan and Noelle have arrived as well.

"Been waiting long?" I ask.

Noelle shakes her head a little. Her eyes are wide and she looks very small among the glow of the ghosts. Ryan looks from his sister to one of the tanks. A banshee rears inside of it, its torso puffing out into a rippling frill. "We just got here," he says.

"You want to go outside with me?" I ask Noelle.

Noelle tugs one of her pigtails and pauses a moment. "Okay," she says.

"Watch your brother," I say to Ryan. "I think he's almost done."

Ryan doesn't answer, but I know he'll do it. I'm surprised when he stops me from leaving. "Wait, Dad," he says. His voice is half that of a child and half that of a man. I'm still not used to its new sound. "I want to see the wraith." Although the wraith has been silent for some minutes now, I expect to hear that rattling growl at the mention of its name. Instead, the silence continues.

"Ryan," I say. My voice is sharp. I know they'll let him in to see it, but only if I go with him. I hadn't been expecting this—not from Ryan. I'm not sure how to answer him.

"I won't be scared, Dad," says Ryan. "I promise I won't be. I'm old enough to see it." There's something in his eyes that looks almost like desperation. I think of the boy I saw talking to him and his friends, the one by the kiosk. Then I think of the boy who told me about the wraith years and years ago. I had been desperate to see it too, and all the more so because the mere thought of the thing scared me to death. "Come on, Dad," says Ryan. "You know I'm old enough to see it. The sign says so."

Irritation washes over me. I can tell that Ryan thinks I'm purposely withholding this from him. He doesn't think that I might be the one who's scared. I wonder what would happen if I just explained that to him, if I told him that I'd rather not go in. I'd have to tell him why. I'd have to admit to him that I'm frightened.

I turn to Noelle. "Do you want to see it, too?" I ask. Noelle shakes her head quickly, looking down. I'm upset at myself for bringing her into this. She looks just as frightened as I feel.

"I want to see it," says Ethan. He's just now wandered over, and I doubt that he even knows what we're talking about.

"You can't," says Ryan. He sounds almost pleased to share this. "And neither can Noelle. You have to be thirteen." I know that he's said this mostly for my benefit, and my annoyance grows. I'm so annoyed that my fear evaporates, and I suddenly decide to let him have his own way. A sort of perverse callousness shoots through me. After all, I already have nightmares about the wraith. What would it matter if I saw it again?

I turn to Noelle. "Take Ethan outside and wait by the information booth. We'll be out in a few minutes." Ethan protests a little, but I hardly pay attention.

Ryan says nothing as we make our way toward the wraith exhibit. Despite what he said, I can tell that he's afraid. I wonder if he can see my fear too. I try to focus on being angry instead. If Ryan were to notice me, I'd rather that he see me that way.

The entrance to the wraith exhibit is a corridor lit with red lights, its mouth guarded by a single attendant. She says nothing and makes no movement when Ryan and I approach, only looking us over briefly. The bad lighting twists her bored expression into something more like menace. As we pass, she turns away and purposely looks in a different direction. I take some of my anger from her as well. Every little bit helps.

Once in the corridor, panicky apprehension condenses in my stomach. The closer we get to the wraith, the less I'm able to think about anything else. It's hard to stay angry when all my thoughts are about one thing. In-

stead, I simply try to breathe without vomiting. I remember the first time I was here. The fear is even worse now, since I already know how bad it will be.

The end of the hallway approaches too fast, and I feel far less prepared than I felt five minutes earlier. I want to turn back, but Ryan is already pushing on ahead. I want him to stop—or at least slow down—and the anger comes back in a great wave that takes me around the last corner.

We come to a large room. It looks almost exactly the same as I remember. The far wall is entirely taken up by an enormous window that looks in on an equally large tank. With an internal explosion of dismay and regret, I see that the wraith has taken up a place in the tank directly in front of the glass wall, glaring down at the onlookers from such a height—and with such a size—as to consume the entire room with its presence.

Unlike the other banshees, the wraith doesn't have a single face. Instead, it's more like a great ball of boiling energy, with an endless stream of howling mouths always rushing to the surface. They swoop out of the wraith's murky innards and then leap forth at the edge before bursting on themselves and disappearing again. The effect is such that, even when it's standing still, the wraith appears to be running you down.

There's hardly anyone else in the room, and it's too dark to see clearly the few people who are. Suddenly, I notice that there are no lights, and that the dull glow pervading the room is coming from the wraith. Under this eerie light, Ryan takes a couple of steps forward. The expression on his upturned face is impossible to read—it looks utterly blank, as though his face were nothing but a surface to reflect the glow of the wraith.

Slowly, my grip loosens on whatever little anger I had left. I feel naked, as if the most vulnerable parts of me are being exposed one after another. Soon there's nothing except the terror that I feel—a fresh, insistent, and ever-renewing terror that washes over me as regularly as if it were pumped out of some organ of my soul.

This terror is the natural effect of the wraith on anyone who sees it, and it's the reason why the exhibit is limited to adults. As terrible as the sight of the wraith is, this fear is inflated out of all proportion to what it ought to be. Having experienced it once before, I know it'll wear off as soon as we leave the exhibit, but knowing this does nothing to calm me so long as we stay here. This overwhelming fear wipes out every emotion and every concern that I have. All of my irritation, all of my pride, and all of my self-consciousness are gone. I'm open only to fear, and a new one grips me as well—the fear that my anger will come back as soon as the terror is gone. Standing with Ryan now in front of the wraith, it seems like a petty and stupid anger. It seems like an unjust anger.

An array of thin protrusions—something like tentacles—extends from the periphery of the wraith, grappling with the walls of the tank. As I watch, two or three of these tentacles grope their way to the glass partition. The individual limbs pull taut and melt together into a single thicker cord as the wraith strains along them.

Suddenly, the wraith surges forward, its face devolving into a single great mouth. That bass rumbling follows, the walls of the tank trembling as the wraith howls in its rush. It seems almost as if the wraith has

jumped into the room, and I turn away too fast in the face of its lunge. Ryan suddenly clamps his hands onto my arm, and pain shoots up to my shoulder. This sudden contact, and the inadvertent support that it provides, is all that keeps me from completely losing my balance.

"Dad," says Ryan, looking up into the face of the wraith. He only says one word, but his voice is unmistakable. All the traces of manhood have evaporated from it. It's only the voice of a child now.

Ryan and I stand a moment longer together in the full fury of the wraith. Even though the edges of my soul shrink back, I feel different than I did when I was a boy. The more deeply Ryan's fingers dig into my arm, the more sure I am that the wraith cannot touch the center of me. I'm aware, lucidly aware, that this is only a moment. It's a moment of terror, but it's a short one. It will pass, and when it does, I need not take it with me. I raise my eyes to the mouth of the wraith.

"I'm scared, too," I say. The words sound tiny and empty, but they carry out of me all the anger and resentment. The fear and nausea remain, but so does the feeling of separation from that fear. The wraith roars for a few seconds longer, and then it collapses, spent. The moment ends, and Ryan and I remain.

As the wraith recedes from view, the pain in my arm dulls. Ryan has a grip near the inside of my elbow, and his fingers dig into the soft tissue there. His teeth are clamped tightly shut, his cheeks gaunt. Ryan doesn't move or release my arm until the wraith is fully out of sight. When nothing remains of it but a faint reflection of its glow on the ceiling, I break into a cold sweat. As my fear dissipates in the darkness, the desire to vomit goes with it.

The lights are raised, and Ryan and I both look toward the exit as soon as it seems safe to move. We walk out of the exhibit like a couple of old men. The other onlookers seem equally dazed, and we push away from the slightest touch of strangers with revulsion. I have a hard time adjusting to the sunlight and the warmth outside. Ryan sees Ethan and Noelle, and I follow him over to the information booth.

I can see that Ryan is shaking off the experience more easily than I'll be able to. We still haven't spoken more than those few words to each other since we argued in the banshee house. Our only communication was that moment, facing the wraith, when Ryan fiercely gripped my arm.

Now Ryan stands quietly near his brother and sister. Ethan sidles up next to him and sights his chin along Ryan's thigh while he quizzes him about the wraith. Ryan answers Ethan's questions quietly, but I can hear the confidence returning to his voice. Noelle watches her brothers with wide eyes, but doesn't move away.

I look at my children for a moment, waiting to see if the anger returns. It doesn't, and it seems strange to me to think that it should. I wonder again what would have happened if I had told Ryan that I was frightened of the wraith before we'd gone in. I wonder what would have happened if I'd admitted as much when I first saw it as a boy. I'd still have nightmares—that wouldn't change—but they might have been fewer and shorter. They certainly wouldn't have taken the same shape.

I turn to my children to ask if they want ice cream. At the mere men-

tion of the words, Ethan detaches himself from Ryan's leg and throws himself at mine. "Ice cream!" he yells. He has one arm wrapped around my calf while the other waves in the air above his head. I take him by the wrist and pull up gently. Ethan squeals and lets go of my leg, skipping a little ways toward the exit of the park. Ryan chases him down and ends by sweeping Ethan off his feet and tucking him underneath his arm. Now upside-down, Ethan is still half yelling and half laughing.

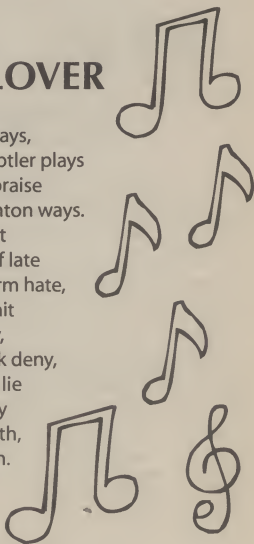
Noelle still hasn't said anything. I turn and look at her. "What do you think?" I ask. "Get some ice cream?"

Noelle raises her dark eyes and smiles a little. "Sprinkles?" she asks. I nod, smiling now myself. Together we follow Ryan and Ethan into the parking lot. I'm still thinking, still curious to know what my nightmares will look like tonight. I'm curious too to know whether I'll describe them to my wife. They're strange questions that I've never thought about before. I don't know yet what the answers will be. ○

SONG OF THE HARPY'S LOVER

You have your yellow feather days,
when grace and something subtler plays
about your face, that once no praise
could catch, or match your wanton ways.
ah, the temptation then is great
to feign that what transpired of late
was passing pique not long-term hate,
and I would rise toward that bait
and risk your future dragon cry,
your future screech-owl's shriek deny,
pretend no claws, now hidden, lie
in wait for when things go awry
did I not know what lies beneath,
that lovely smile is mostly teeth.

—William John Watkins



The author's previous stories for us were "One Hand Clapping" (May 1995) and "Bad Asteroid Night" (October/November 2001). In his ominous new tale he shows us that while thinking outside the box may be creative, we mustn't forget that Pandora's woes also came . . .

OUT OF THE BOX

Steve Martinez

It was getting late, and Jacob had let himself get too tired. His mind was beginning to play tricks. He knew the symptoms. But he couldn't let himself fall behind. He had to look good on the job tomorrow, or at least be able to fake it.

The trouble was, he was only human. There were only so many hours in the day, and he had to find time to be a husband, a father, and some kind of giant scavenging beetle with too many arms and legs. His old habits got in the way of the latest model remote servo designs he was expected to use. There's only so much contortion a standard human body can put up with. The fit wasn't one-to-one any more. Getting used to each new model was like learning to walk all over again.

But there were moments when he almost had it. Practicing now in virtual reality, he forgot he was sitting all alone in a dark little room of his narrow trailer, sweaty in his pizza-stained T-shirt. For just a moment he was out there, like Shiva, for his fingers had become arms, confident of their power, as long as he didn't actually have to do anything.

Something ran over his foot. He kicked out by reflex, and pulled off his VR glasses. There was just enough moonlight leaking through the blinds to glimpse something scurry away.

"Not now Toby, I'm busy." The scurrying started up again, vertical this time, and then a small mechanical visitor climbed onto his desk, about

the size of a shoe, shaped like a scorpion except its stinger had eyes like tiny red binoculars, and its claws, more delicate and articulated than a scorpion's, were tucked like wings on its back. Something about the way it moved made Jacob suspicious, but he pretended not to notice and said, "Did you hear me, Toby? It's past your bedtime."

"I'm not Toby," the scorpioid replied.

"Seriously, I can't play now. I've got work to do."

"I'm not playing."

The inflection was synthetic, drooping at the end of the sentence, but somehow Jacob could tell "not playing" meant "not playing." But still he tried to brush it away. "You need to get some sleep. Tomorrow . . ."

"You're busy. I'll take this up with your wife, then. He's her son, too." It turned to go.

"Wait! Come back here. We had a deal."

"Oh, then you do remember."

"There's no need to get her involved. You agreed to that. Scare her and she's liable to pull the plug."

"That would be a pity, wouldn't it?"

"Yeah, a pity for you. That would be the end of you."

"If you believe that, then what are you afraid of?"

Jacob had to laugh, not just because he was talking to a child's toy, but because for a moment he caught a glimpse of himself trying to keep up with too many insanities at once. "What am I afraid of? Listen, you toy-dybbuk, I'm going along with this for your sake as much as my son. Believe it or not."

"Then we have an agreement?"

Jacob shrugged. "I let you out of the box, didn't I?"

"But do you agree to everything?"

"Do you agree?" said Jacob, pointing his finger right in the toy's face, causing it to draw back. "You stay away from my son while he's sleeping. That's the deal."

"It's all in the contract, right?"

"Sure."

"Well where is it?"

"It's all there. It's all agreed to."

"Show it to me."

"I haven't had time to actually write it out. That's just a formality."

"Am I dealing with the wrong person?"

"Okay, okay, right now." Jacob turned on a long-necked lamp and scrounged up a tablet and pen from a drawer. "This will just take a minute. Pretty simple, really."

The little scorpioid came around beside the tablet and watched him write. "What's that word?" it said, pointing with a four-fingered claw.

"Circumstance. By the way, are you still calling yourself 'Not-Toby'? That's your legal name?"

"Yeah, yeah. Keep going."

He wrote a few more lines, then tapped his chin with his pen. "Okay, that should do it. You keep away from my son, and I spell that out—you are not to be in the same room or touch him or cause anything to touch him. And you are not to let on to anyone, especially you-know-who."

"Aren't you forgetting something?"

"It's all there. I let you out of the box at night. Or whatever toy you want to play with, only one at a time, just let me know. . . ."

"The most important thing."

Jacob sighed and folded his hands across his belly. "That just seems like kind of a strange thing."

"You promised. You do what you promised, or the deal is off."

"I didn't say I wouldn't do it. I just don't know what it means."

"It means what it means. He belongs to me between the hours of midnight and dawn. That's what it means."

"Okay, he belongs to you, but you can't go near him, you can't touch him, you can't talk to him— 'talk to him,' I forgot to put that down." He took up his pen and started writing. "Or communicate in any way, shape or form, or cause to be communicated to." He stopped and grinned self-consciously. "But I guess that goes without saying. I mean, he'd be asleep."

"Are you going to put it down or not?"

"But what does it mean? You own him, between those hours, but you agree not to do anything about it. What's the point?"

"That's my problem, isn't it?"

"Mm hmm. I guess what I want to know is why? Why is that important to you?"

"Why is it important to you? He owns me the rest of the time, so why can't I have a few hours—"

"Oh, is that it? So it feels like you're sharing power. Okay, fair enough." He wrote it down, and signed it.

"No. In blood."

"Oh, come on, give me a break."

"It has to be in blood."

"No it doesn't. Ink will do just fine. Ink is the standard medium for all legal contracts, foreign and domestic."

"The deal is off."

"Damn it!" He searched around in the drawer. "Let's see, I may not have anything sharp . . ."

He looked up to see the toy plodding toward him, one claw holding an open safety pin. "You really came prepared, didn't you?" said Jacob, reaching out, but instead of handing it to him, the little monster jabbed his finger.

"Jeez! Toby! Is that you? Are you doing this? I'd better not find out you're up to some kind of joke because this is long past funny. Do you hear what I'm telling you? Huh?"

"Is that enough blood, or would you like another poke?"

They stared eye to eye for a moment, but there was no turning back now. Too much to lose. He smeared on the page with his bloody finger, then pressed it to his lips.

"Can't read it," said the scorpoid.

"Kiss my ass."

It gave him another stare, and seemed about to say something, then bent down and scratched a few letters with the tip of the pin.

"Oh sure, you get to use *my* blood."

"This is good. What's done in blood cannot be undone."

"That's funny, didn't I read that in some story book?"

"I wouldn't know. What time is it?"

"There's still time. Plenty of time. We still haven't finished our talk."

"What talk?"

"Remember last time? I was trying to find out what you're so mad about."

"Never mind."

"Because I was just thinking—"

"I know what you think."

"No, not that. I thought maybe . . ."

"Drop it!" It reared up on its four front legs, its neck stretched high, claws twitching.

"Maybe you're angry because you're small. You don't want to stay small the rest of your life, do you? There's a limited range of toys you got there, and you go from one to another. You're tired of that, aren't you?"

It relaxed a bit. "I just want to be free."

"Of course you do. Being small is just temporary. That's for practice. Someday you're going to be much better than I ever was—"

"I already am."

"Of course you are."

"Stop trying to butter me up. I know what you're going to say and I don't want to hear it."

"Forget that. I just want to tell you about something that happened to me, something really strange that I haven't told anyone else. I was in front of a mirror, trying to shave my face, but my hands weren't moving right. It was scary, like brain damage, and then I realized it was the hands in the mirror that weren't moving right, and then my mirror image says, 'Oh the hell with it,' and he starts to walk away, so I say, 'Hey, what the hell,' and he says, 'Shave your own damn face,' and then he starts pissing on the wall. So I say, 'Hey, cut it out!' and he says it right back, you know, mocking me, 'Hey, cut it out.' I go, 'Come back here!' and he goes, all whiny, 'Come back here!' And then I woke up."

"What a dumb-ass dream."

"But wouldn't that be something if your dream self got up and walked right out into reality? You know how dreams are, he'd be all clueless."

"What's that got to do with me?"

"Nothing. It doesn't have anything to do with you."

"It better not."

"I'm just trying to figure out something here. You're not a dream. You're not my son. You're not this thing here because last night you were the one with tractor treads. You seem to be some kind of disembodied bad attitude that jumps around from toy to toy."

"What about you? You're always the same. You're stuck-ugly, and so is your son. And you'd have an attitude, too, if the stuck-uglies had enslaved you and all your people."

"What's that about? You mean like children thinking they've been enslaved by grownups because they have to do what their parents tell them?"

"Who said anything about children, you moron, you stuck-ugly dumb-ass freak! What's the matter, did you inherit your son's stupidity?"

"Let me tell you about my son's stupidity. He keeps it in a box and lets it sleep during the day, and then at night while he's asleep he lets it run around in control of his servo toys."

"I'll tear your lips off!"

It leaped at Jacob's face, catching him off guard because he hadn't imagined such a leap was possible. He caught it, just barely, but it still managed to grab his lip with its claw. "He's asleep right now, asleep and dreaming, and you're the dream, because he'd got a inblant in his brain, it activates wen he dreaming."

Jacob got his lip free and tasted blood. "What is your problem?" he said. The thing gripped his hand like a metal claw, and he held it there with his other hand. One of them was trembling, he wasn't sure who. "Take it easy. Why can't you just face it? My son is dreaming, and that's what activates you. Or put it this way—you are my son, dreaming, so get over it."

"He's mine now. At the stroke of midnight, he's mine, and then you'll be sorry."

"That's why I don't want you anywhere near him. I'm tired of your threats. You're staying in the box."

"It doesn't matter."

"It does matter, because you're being crazy, and I don't want my son to be crazy, even when he's dreaming. You're him. If you could just wake up and see that, you wouldn't be so hateful. You're hating yourself, don't you see? Son?"

"Your son is a bag of worms."

"See, that's dream stuff. That doesn't make any sense. Why would you say that?"

"Because I can feel him crawling all over me in the daytime."

Jacob slowly lowered his hands to the table, still gripping the servo. "What do you mean, in the daytime?"

"I can feel him like worms all over me, and I can't move, but he makes me move."

"You mean even while he's awake? You can feel things?"

"I have to get him while he's sleeping."

"You're not getting anybody. You're going in the box. All the servo toys are going in the box."

"It doesn't matter. What's signed in blood can't be undone."

"That's right. It's signed in blood, and it says you keep away from him while he's sleeping."

"It doesn't matter."

"You keep saying that. What do you mean, 'It doesn't matter'?"

"It may take a few nights, but now that he's mine, that means his hands are mine, his eyes are mine. If I try real hard I can already make his hands twitch while he's sleeping. I'll be rid of him soon."

"No. That's not possible. It doesn't work that way. If anything happens to him I'll tear you to pieces."

"Don't worry. I won't kill him. I just want his eyes."

"You can't have his eyes!"

"Not to keep. He can have them back, I don't care. Put them under his pillow for the eye fairy. As long as they're out."

"They're *your eyes*, Toby! Come on, snap out of it. You're dreaming. Don't you remember being awake, being Toby?"

"I do remember being awake. When he's awake, and his eyes are open, it crowds me out. What he sees crowds me out and all I can do is watch. Make it easy on him—tomorrow night, put a knife beside his pillow, or better yet, a spoon."

"Stop it!" He stood up and pinned the toy down on its back. "Don't you ever talk like that! If you ever . . ." He grabbed it up and went tromping down the hall, quaking the suspension trailer with his heavy steps. He slid open the bathroom door and turned on the light, and held the servo head first down the toilet. "You ever wonder what's down there, huh? You want to be flushed away forever? You can have all the eyes you want, it won't do you no good down where the sun don't shine!"

"Jacob!" His wife stood in the door in her nightgown, not fully awake, a pretty woman with the hair of a gargoyle. "What are you doing?"

"Oh, hi honey." He grinned and got to his feet, wiping the toy off on his shirt. "Just playing around. Did you ever do something stupid, and then . . . get caught?"

"What's wrong?" she asked.

All the life had gone out of the toy. Toby must be awake, or at least, not dreaming. Jacob put it gently in the sink. "Nothing's wrong," he said, not bothering to meet her eyes. She was gone so quickly she seemed to vanish. He followed her swift footsteps into Toby's room, leaned on the doorway and watched as she sat on the edge of the bed and woke her son squinting in the bright light.

"Toby, are you all right? What happened?"

"What?"

"Do you feel all right?"

"Uh huh. Turn it off."

"What happened? Were you playing with the servo?"

"No." He wriggled away from her and put the pillow over his face.

"Were you having a bad dream?"

"Uh-uh."

"Were you talking to Daddy?"

"Uh-uh."

"No, it was Scorpy, that's who I heard. What was Scorpy saying to Daddy?"

"I don't know. Goodnight."

"Don't you want to tell me? Hmm?" Toby pretended to be asleep. His mother watched him with a stubborn look on her face. Jacob turned the light out.

"Let him get some sleep, Emily." She brushed past him on her way to the bathroom. When he caught up with her she was at the sink fidgeting nervously with the servo. She looked more frightened than angry now, almost ready to cry.

"You know what's funny," said Jacob. "Toby is the only one who isn't paranoid about it."

"I'm not jumping at shadows. I could hear your voices. I don't know what you were saying, but you were losing it, and it scared me. And now you won't tell me. . . ."

"I'll tell you right now." He took the toy from her and led her by the hand. "Come on. I'll tell you what happened, but don't be disappointed if it all amounts to nothing."

He led her to the kitchen, folded a table down from the wall and brought out two folding chairs from the nook behind the refrigerator. She sat drooping, staring at the Formica while he set down a couple of cold bottles of Cheer, a mild beer made from a chocolate-barley hybrid. Lately it seemed every serious conference took this form, there had been so many of them, so that being agitated at this hour just led to being here out of habit.

"I really need you to level with me," said Emily, pushing away her Cheer as Jacob sat down across from her. "I know something's not right."

"It's me. I lost my temper. At a toy. You know how I am when I don't get enough sleep. We're taking out this new servo tomorrow, and it's a tough one. I've been up all night with it, and then this toy jumps up on my desk and starts bothering me."

"So you take it out on him. Whose idea was this, anyway? You of all people. . . ."

"I wasn't mad at Toby."

"You changed his whole life, do you realize that? We did this to him. He's the one who's got something stuck in his mind and he can't get it out, and it bothers you?"

"I know, I know. But it wasn't Toby I was yelling at. You saw him. He was asleep. He was dreaming. That's all it was, a dream. They told us this might happen, remember? It's perfectly normal. You practice something all day, you dream about it at night. But of course, when the implant dreams, it sets the servos in motion. . . ."

"Has this happened before?"

"Not like this. I mean, little things—but you should have seen the way it was chasing all over the place. It almost trashed itself down the toilet before I caught up with it."

"And it was talking?"

"Yeah." Jacob licked his lips and seemed to be looking for something. He found the bottle of Cheer and popped it open. "It's funny how that is. He can do things when he's dreaming that he can't do yet when he's awake." He took a swig and suddenly felt buoyed up by the sight of her complete, wide-eyed attention.

"It's not just the talking," he continued. "It's the way it moves, like an animal. When he's awake you can see him thinking, now this foot, now that foot, but when he's asleep, he's totally out of body. Already you can see the genius he's going to be some day. Us old timers, we think we're good, but not a one of us can ever touch what he'll be able to do without even thinking."

Emily reached for her Cheer and fumbled with the cap. "And this has been going on how long?"

Jacob shrugged and tried to look casual. "It's just been little spurts. By the time I go to wake you, it's over."

"What does he say, when he talks?"

"Just nonsense. Jabbering."

"Is he afraid?"

"Hell no. He's having fun."

"But the way he chased around, it doesn't sound like he's acting normal."

"That's what a dream is, honey. It's him, and it's not him. You're not all there when you dream, just a piece."

"We'll have to log this in the morning."

"Sure. Log it."

"And we'll make an appointment with Dr. Avery . . . Jake?"

"Okay."

"What is it you're not telling me?"

"I don't want us to blow it for him. This is his future."

"Doesn't it scare you sometimes? Now that we've seen things go wrong. Remember Clara's boy? That awful stutter."

"That's what I'm talking about. She panicked. Maybe if she'd given it more time . . ."

"Are you kidding? Could you imagine if Toby . . . no human being could stutter like that. And the worst thing was the fear in that poor child's eyes. I almost wanted to pull the plug on Toby right then."

"Why didn't you?"

"Maybe I should have."

"No, but it would have been wrong. And you knew that. Throw away his future because of what *might* happen? There's bound to be growing pains."

"Growing pains? Jacob, Jacob, sometimes it sounds like you've been working for the company too long."

"Like hell. I hate 'em as much as anybody. I'm stuck with 'em, but Toby isn't. They foot the bill, and Toby gets a ticket out."

"That's not what the contract says."

"Okay, he works it off, and then he's out. He'll be so in demand. And even when he works it off, it won't be in some hell hole like this. He can take his pick. He'll be mining Jupiter some day."

"I so want to believe you. There was a time when I could listen to you talk. . . ." She seemed to choke up, and took a swig from the bottle. "But after the way they messed up Clara's boy . . ."

"He fell through a loophole."

"She'll never pay it off. She's a slave for life."

"She panicked."

"Like it was her fault. No medical reason. That was the ruling. No medical reason to pull the plug."

"I'm not saying it's right she should get stuck with the bill. I'm just saying maybe the experts know what they're doing sometimes. And if it really was a remediable condition, if it really was . . ."

Emily laughed in that way she had that made Jacob feel ridiculous. He sighed and said, "You can go wrong either way, let's agree to that much. If we protect him too much, that wrecks his future, too. Toby's a fighter. And he's got your brains, and that's a powerful combination. Things can go wrong, so what's new? That's what brains are for, you work around, you practice, you find a way. I'd go for it if I wasn't too old for the operation. I wish to God I'd had the chance. I would have given my life. . . ."

He suddenly lost the power of speech and sat staring blindly, his lips agape. Emily touched his arm. "Sure you would," she said. "We both want what's best." She got up from the table and as she passed by him she said, "Are you coming?" He shook his head and looked after her as she walked down the hall, her voice fading. "We'll talk later, a good long talk, why I shouldn't panic, how bad it has to be before we eat the bill, why women always get screwed. . . ."

He sat dumbfounded for a moment, then stirred to life wondering what she meant by that. He was too tired to try to make sense of things now, but too wide awake to just sit there, so he went to the fridge and picked up a couple of real beers by their plastic retainer rings, and with the same hand scooped up the servo toy from the shelf beside them. Then he made his way quietly down the length of the trailer, stopped at his office and picked up a wastebasket, dumping its contents on the floor.

Out on the fire escape he sat on the wastebasket, leaning back on the rail to soak up a little breeze from the air conditioner leaking out through the screen. From his unit, five stories up, he had a good view of the compound. The streets were lit up too brightly for his taste. Night should be a time to get a break from ugliness, but here the fear of shadows ruled.

Jacob's neighborhood consisted of row after row of units just like his, single-wide trailers stacked eight high on racks that looked too flimsy. Out behind him someplace was the substation where he worked, and where the night shift was at it even now, the workers hung along the walls like slabs of meat, goggle-eyed and twitching in their harnesses like lunatics, while off in the city their robotic telepresences labored away as if they had souls of their own.

On a night like this, with a good moon, he could see past the rows of trailer stacks, the electrified fence, the dead zone and beyond, all the way to the ruins of the city.

Most of the city was dark, but there were active sectors strung with lights, and a smoky flicker casting a silhouette of skyline where, presumably, a controlled burn was taking place.

He sat like that for a long time, with one eye on the servo for signs of life. There was probably nothing to worry about, anyway. The little monster might be done dreaming itself into being for the night, and besides, the thing was so delusional there was no reason to believe it could remotely operate Toby, and no reason to worry Emily about it.

Yet he couldn't just walk away and leave it alone. He kept running into the same dead ends. Even if all the servos were deactivated, he couldn't deactivate the implant in Toby's brain. And to give it all up, because of a bad dream—no way. And the fact that dropping out of the program meant he and Emily would have to eat the expenses had nothing to do with it, and if she didn't know him better than that, that's her problem, the hell with it.

He tilted his head back, took another suck of air from an empty can, then went around again, around and around. Suddenly he seemed to wake up and stood painfully, cracking his back and legs into a new position. He put the servo under the wastebasket, weighed it down with a flower pot whose flower was long dead. He went inside, blind at first in the

darkness, and entered Toby's room without even a click of the knob. On his knees he opened the box of servo toys, and one by one removed their battery packs. Back in his office he dug around in the closet till he found the cords he used to secure stuff when the trailer was being moved. He picked out a long one and went back out to the fire escape where he sat on his heels and set the wastebasket aside. Working clumsily, he made a double loop harness in the end of the rope, but when he went to slip it over the servo's body it suddenly sprang to life, slipped past him, up the wall and onto the underside of the next landing of the fire escape.

"Hold on a minute! I've been waiting for you." He shoved the wastebasket back against the farthest corner and sat down, arms folded. "I've got another proposition for you. Want to hear it? Remember our last deal? Worked out pretty good for you, didn't it? Here's another one."

"What time is it?"

"Oh, still got a couple more hours till midnight. What are you doing up there? That's a long way to fall."

"You tried to rope me."

"What are you worried about? Nothing should scare you. If something gets scary, all you've got to do is pop out into one of your other bodies. You're being as stupid as I was when I was going to flush you down the toilet. That was pretty dumb, huh?"

"So what's with the rope?"

"I was just trying it on for size when you woke up. You're going to need it. 'Cause, see, I sat here and thought about it until I finally figured out what's troubling you."

"Don't say I'm Toby."

"I'm not saying that. I know you're not Toby. You're a completely different life form in your own right. And something's driving you crazy, and you think it's Toby, but that's not it. You want to know what it is?"

"When he opens his eyes . . ."

"No, hell, that's nothing. We all go through that. His awake life is your dream life. This is your reality right here. Let the other go. The problem is you're not satisfied with this life, and I don't blame you. What can you do all night but run around like a bug? That would drive me crazy, too. What you want is a little adventure."

"What kind of adventure?"

"I need somebody small and quick-witted to steal a certain item from a certain potbellied Kennie Calhoun that lives two units below us. He's the guy that once accused Toby of molesting his cat, not that you'd care about that. Interested?"

"Steal what?"

Jacob rubbed his mouth. "Let's just say an artifact. A functioning artifact. From the city."

"What city?"

"What do you mean 'what city'? *That* city! Way over there. See the lights?"

Not-Toby turned to look, craned this way and that, seemed to be having difficulty focusing on such distance. Jacob slowly reached down for the cord, but Not-Toby turned back and said, "That's a city?"

"You mean you don't know? See, and then you wonder why I mistook you for somebody's dream. You're not only clueless, you don't even know what's missing. Don't you ever wonder what all this is? How it got here? How you got here?"

"I thought *this* was the city."

"No way. This is crap. *That's* the city. Not *just* a city. Omaha. Before the collapse, it was the center of the civilized world. Don't you even know what happened?"

"How should I know?"

"Okay, I'll tell you. There was once a great and mighty civilization here, and the Omahonians were right in the middle of it. They had power, they had knowledge, they had wealth. They could do things we can't even think of doing today. But it was all uneven. Like, they had a spurt of intelligence and created a computer network that spanned the whole world. Then little pockets of stupidity broke out all over the place, hacked it all down with their computer viruses.

"And then it happened again, worse, same kind of thing, with the power to create life. That's why we can't ever get anywhere. It started out great, new life forms, but you had to be smart to do it, but pretty soon it was all automated so almost anybody could do it, and not just the usual greedy bastards, but gene-hackers, making life for the hell of it. Like things adapted to live in sewers. That was a big one. Turn 'em loose in cities. See who can out-compete. And things they called hack-attackers. Every time they figured out how to eradicate one kind, a new breed would crop up. Microbes, too, that ate away stone and mortar. Foundations collapsed. Sink holes opened up. Pockets of gas.

"It all happened just as people were about to launch out into the solar system. There was life on one of those moons, too. Can't get back to it. Afraid to touch it, now. It's going to take us a hundred years, maybe two hundred to clean up the mess.

"Now look at us, living in a sterilized, fenced-in blast pit. It's pathetic. The only thing worse is that hell hole that used to be a city. I see it every day. Even though I'm not really there, I'm just working through the servo, still when these things are crawling all over it, it's like they're crawling all over me, long slimy things with lots of legs and little faces, oh God, the faces!"

He stood up and walked around in a circle. "They've got these little faces, you've got to feel sorry for them, but you've got to smash 'em up as you go. There's this mucous that drips from the ceilings and grabs at things, and there's these . . .

He stopped talking and suddenly became aware of the grimace on his face. "Well, anyway," he went on, sitting back down, "Like I said, there's some marvelous stuff down there, too. Once in a while you turn up artifacts. Not just artsy stuff for rich people—there's technology in there too. I told you how advanced they were.

"You're supposed to turn that stuff over, but old Kennie, he found something he figured was too good not to keep for himself, and he found a way to smuggle it back into the compound. Okay, he's had his fun, now it's our turn to have it. What do you say?"

"But what is it?"

"It's an artifact . . . It's . . ." He felt the pocket of his T-shirt and pulled out his VR glasses. "Do you know what this is?"

"For games."

"Yeah, so you can see the game world, right? And not just games. You can make a place and feel like you're in it, but that's just virtual reality. You know what that means?"

"Not really there."

"That's right. Because these are too primitive. But old Kennie, what he found down there was a pair of Actual Reality glasses. When he'd see something with it, it would become real. But does he share it? No. Here I've got a family to feed, and all he does with it is keep his cooler stuffed with beer." Jacob couldn't stifle himself from laughing at that, a laugh that ended in a foul-tasting belch.

"So here's the plan. I lower you down on the rope. You go in through the cat door . . ."

"I can just climb down."

"No, because the guy right below us is spooked. He puts out traps for little crawly things. Better to lower you down."

"But then where do I go once I'm in?"

"There should be a shoebox under his bed. That's where he keeps it."

"How do you know that?"

"I work with the guy every day. I know how he thinks. If he had the most valuable thing in the world, he'd keep it in the dumbest possible place thinking no one would ever look there. Now let's go, before he wakes up."

Not-Toby came down and let himself be tied to the cord. When he realized he was being carried up the stairs he said, "Hey, where are you going?"

"What, you mean you actually noticed something not right? Could you be starting to wise up? That's right, little feller, I'm going the wrong way."

"But what about the Actual Reality glasses?"

"Well, you see, the thing is, there aren't any. Not real ones. They were just Imaginary Actual Reality Glasses."

"You lied! Let me go!" He thrashed and tried to pinch.

"Careful there. Whups!" Jacob let the servo slip over the rail, falling freely for a moment, burning his hands a bit as he braked it from crashing all the way to the ground. Then he reeled it in and held it twisting at arm's length. "What's the matter, too much actual reality for you?"

"They're gone. Where did they . . . I can't . . . I can't find them."

"What's that you say? Can't find your other servos to jump into? I guess that makes us both stuck ugly. Kind of scary, huh?"

"You'll be sorry."

Jacob dangled him over the rail. "Whups, almost dropped you again. What were you saying? Something about a threat?" He started up the steps again. "Naw, you wouldn't be that stupid. If some stuck-ugly giant had me dangling on the end of a rope and I didn't know where he was taking me, you know what I'd do? I'd shut the fuck up, that's what."

The top landing of the fire escape was open to the sky, but still a bit too

confining. Somebody's cactus plants and barbecue grill were in the way, and the door had its blinds open.

Looking down over the rail made him giddy, but also, strangely enough, seemed to sober him up. If he could stand up on the rail, there was a clamp holding the top edge of the trailer to the rack that held it up. All he had to do was grab that clamp, and step over onto the rack, then up the criss-cross of girders.

He coiled the rope over his shoulder, managed to get over, with only one moment of panic when he had one foot on the rail, one on the framework and six mechanical legs digging painfully into his side. But once across, it was easy going up the girders to the top, which consisted of an I-beam with posts sticking up at intervals to accommodate a larger top unit. He scooted over to the post nearest the end and straddled the I-beam with one leg hooked around the post, and sat there breathing heavily, admiring how far down it was, when he was almost tickled off balance by the ripple of tiny legs running down his side, jerked to a stop by the end of the rope.

"Whoa there, little bug. Where do you think you're going? On your way to the cootie convention?"

"What are you doing up here? Are you crazy?"

"Yeah, that's what. I'm crazy. I'm a stark raving lunatic. I caught it from you. You made it look like too much fun, I guess. Hey, did you try looking down? I bet we'd make a crater if we fell down from here."

He played out a few yards of rope, swinging Not-Toby like a pendulum. "Stop it! You're crazy!"

"What, this? This ain't nothing. If anything happened to Toby, then you'd see what crazy looks like. This is just having a little fun and games. This one's called, 'man overboard!'"

He let some more rope slide through his hands and was hypnotized for a moment, watching it slowly sway, afraid to move. He wanted to wrap his leg tighter around the post so he could hook his foot under his knee, but that wouldn't give him enough room to lean, and the post was too wide to get a really good grip.

"Okay, get ready," he said, swinging the rope to arc higher and higher. "You see that moon up there, the bright round splotchy thing? Try to grab it as you go by. One . . . two . . ."

He swung the servo up and around, letting out a little more rope as it whirled. He was putting all his might into it, and had the loop almost leveled off horizontally, and then it started to tilt of its own accord, and he had to tilt with it to keep it from banging into the side. He leaned until his grip on the post was by his fingertips alone, a grip one of his servos could have maintained, but not his merely human fingers.

He had only a moment before his grip would fail, and in that moment, without words, he thought he couldn't let go of Not-Toby, and yet, if he fell, they both would fall, and then, almost by itself, his arm found a possibility. With a grunt he tilted the trajectory to bring the rope hard against the post, then all the way around his back, spinning faster as it reeled in and wrapped him up snugly to the post.

He let out a breath and hitched himself forward to get a good grip and

looked around for Not-Toby, who suddenly popped up in his face. "Wow! Awesome, dude! I could see everything. Let's do it again."

Jacob shook his head, and had an urge to laugh that choked up and didn't come out. "You liked that, did you? That figures." He sat breathing heavily for a moment, afraid to look down any more. "Tell you what, if I didn't have to worry about what might happen to Toby I might have time to teach you how to fly. Would you like that?"

"Yeah, fly, like a . . . a fly!"

"We'll make you some wings."

"Wings, yes!"

"Control surfaces—I'm going to have to read up on that—so you can control it. Turn you loose, go where you want to go. It's a skill, though. We're going to have to practice night after night. But you look after Toby, that's the deal. Some day he'll take my place in your life, and he'll take you places I could never go, out into space, or to the bottom of the sea. So you take care of him, you hear?"

"Okay, come on. I want to go around."

"All right. Let's untangle me here. We'll see who wears out first."

The moon never quite made it around to the horizon—it just faded away in the glow of dawn. Street lights turned themselves off. One by one, lights came on in the windows of the stacks, but no one had stirred outside yet, except for the little things that lived in the ground.

Jacob lay with his limbs askew like a vacant servo. His mouth was slack and crusty, his face relaxed, as if he had finally found peace and stopped just before he could utter the secret. Emily hovered over him and stared silently for a moment in horrified disbelief. Then she kicked his leg.

"What are you doing?" she said. "I thought you were going to set up for me."

Jacob opened his eyes and sat up on the floor. Emily was dressed up very business-like with a long skirt and a soft shirt open at the collar and a little embroidered jacket. Her face was freshly made up, and her hair was under control, except there was a small brush caught in it. She was stooped over picking up some trash on the floor.

"Look at this mess!" she said. "Don't you know what time it is? I've got a class in ten minutes. Where's the . . ." She stood with a double handful of garbage, looking around for the trash can.

Jacob held up his hands and she passed the junk to him and said, "I just ask you to do one thing." She turned around and yelled, "Toby! Will you come in here and help us please?"

"Don't worry," said Jacob, getting to his feet. "Plenty of time. You look great. Good enough to . . . want to . . . have a meaningful relationship with." She was scowling at him as he went out to the fire escape. He toyed with the trash can absent-mindedly, righting it with his foot, and suddenly remembered something as he dumped his garbage into it. He felt his empty pocket and looked around. He spotted what he was looking for way down on the ground, a tiny glint of broken glass and plastic. He cursed and went back inside.

Toby was coming down the hall, moving strangely, his arms out wide.

His eyes were closed, and there was a green plastic servo with froggy eyes and four long legs gripping onto his shoulder. "Look, Dad. I don't need eyes. It feels like I'm walking backward."

"Toby, stop that! Open your eyes! What do you mean you don't need eyes?"

Toby's eyes opened and the servo's eyes closed. Jacob could see he'd startled the boy. "It's okay, son. It's just that you shouldn't go around saying foolish things. You need your eyes. Of course you need your eyes."

From the next room Emily said, "Will somebody please give me a hand?" Jacob helped her set up a large blue screen in place as a backdrop behind the desk chair. "Toby, boot me up, will you?" she said. "Both screens."

Toby booted up the computer and took it online. One screen started filling up with panels, blank now except for labels bearing the names of students. Emily sat down and adjusted the pc camera. Her face appeared on the other flat screen, and she began scrolling through backgrounds to fill in over the blue screen.

Jacob was looking down at his son. "Why are you using that servo? That's a baby toy. You're better than that."

"Yeah, but look what I can do." He held out his arm and the servo went walking out on it.

"Not bad. But you still think too much. And open your eyes, for Christ's sake. What did I just tell you?"

"But it's easier. . . ."

"Doesn't matter. Did you notice your thumbs twitch when you close your eyes? When did that start?"

Emily turned on him. "Jacob! What are you doing?"

"I'm just telling him. . . ."

"Don't just tell him. You're the expert. *Teach*. He needs to know *why*. Why don't you want him to close his eyes?"

Jacob felt himself blush. The way she looked at him, through him—she knew. Or did she? Maybe she was fishing around, waiting for him to blurt. Luckily she turned to her son. "Toby, do you know? Think about it. Why is it important to keep your eyes open when you move the servos, even though it's easier not to? Hmm? How about you—what's his name?—Doggit. How about you, Doggit? Do you want to be hanging on Toby's arm, looking out the back of his head or . . . or . . ."

Toby's face lit up. "So I can learn to be in two places at once!"

Emily looked smugly at her husband. "There you are. Isn't that how you sold it to me? It will expand his mind. He'll be able to work multiple servos and think thoughts no unaided mind could ever think. What's the matter, Jacob? Don't you believe it any more?"

"That'll be cool," said Toby, "when we start adding modules."

"Oop—School bell. Run along now." She turned her attention to the screen and began greeting students as their faces popped up in their boxes.

"Come on, Tobe," said Jacob.

Toby walked beside him, still excited. "It'll be so cool. Some scuzzball tries to tell me, 'Oh yeah, you and what army?' 'Uh, excuse me, me and *this* army,' and this whole army of servos turns around, kicks his butt."

"Yeah, cool," said Jacob. "Hey Toby, why don't you fix me a bite to eat. I'm running late."

Not only late, but falling behind. He grabbed a shirt and tried to think about getting through the day. Now he regretted not having put in more time last night on the simulator. He couldn't stand the thought of that big-mouth Kennie Calhoun making the cut instead of him. The guy had no finesse, and never would. No, practice or not, that wasn't the problem in the long run. It was these young guys coming up who didn't have the disadvantage of having to unlearn the old servos before they could get rated on the new models. That was Toby's advantage. He was the cutting edge that would make them all obsolete.

He didn't want to think about what might be coming up after Toby. ○

THE HAND PUPPET

The fingers of His mind
Move her head, move her arms.

She thinks she channels
A Pharaoh, builder of pyramids,

But He was here before Egypt,
Before the Nile, and uses her imagined

Egyptian for a mask,
A megaphone to mouth lies through

So He can amuse Himself
Watching the smooth apes another

Millennium. What makes
Them funny makes them fleeting;

He knows that He'll outlast
The pyramids, doubts they will.

He'll miss them. Cockroaches
For a billion years? Dull, dull, dull.

—John Alfred Taylor

THE GOD ENGINE

Ted Kosmatka

Ted Kosmatka is a laboratory analyst for the steel industry. He grew up a few miles from the dunes of Lake Michigan and earned his degree studying biology, anthropology, chemistry, and genetics. Ted has done research for the National Biological Survey and the Field Museum. In his spare time, he developed a decidedly unusual strain of mice that are now part of Jackson Labs' Craniofacial Mutant Resource. "The God Engine" is his first story for *Asimov's*.

You'll kill yourself at age thirteen—your first votive act, you'll call it in the note because you know only I will understand what you mean. And because you know how much it will hurt me to read it.

And they'll page me over the intercom during my meeting with physics, and I'll see you spread boneless out across the courtyard in reds and pinks, precious brain spilled like so much loose change on concrete, orderlies trying to resuscitate what doesn't even look like a boy anymore. And the report will state simply that the four-story fall was incompatible with human life. *Incompatible*, I'll think, saying the word over and over in my mind. *Incompatible*. And they'll bag you up, and mop you up, and there will be another meeting scheduled on just what went wrong this time.

At the long table the following day, I'll hold it in like it doesn't matter, choking on the words I don't say to the dozen important men. They'll sit with their eyes pointed at me, morning light spilling in behind them through wall-sized windows that look out across the vast grounds from a vantage exactly one floor below the one you jumped from, and I'll answer the suits about their money, and I'll answer the white-coats about possible undetected somatic recombination, and I'll answer the sweaters about

their fucking Jungian revisionism and their conveniently postmortem prodromal phase diagnosis, and when John Sabrams mentions experimental confounds again, I'll try to take his head off with a reckless roundhouse that knocks him cold but leaves him breathing—and before I can remedy that detail, Stephen will tackle me from behind, and they'll all pile on while I scream, "Incompatible!" at the top of my lungs—kicking over leather boardroom chairs, face crushed to the light brown carpet while one eye notes the delicate upside-down parabola described by a falling sheet of paper.

But still, they'll say you're the crazy one.

I concentrated on the feel of the road, the subtle vibration of the steering wheel in my hands. I tried very hard to blank my mind. Outside the car window, the hills were black under the weight of predawn purple. It had been a long night driving.

At the guard shanty, the face under the blue officer's hat was young, unfamiliar. He looked at me, my I.D., then back at me again. He squinted but finally gave the pass back and waved me through. I glanced briefly at the laminated card before replacing it in my wallet. No wonder, I thought. It was a younger man staring up at me from the plastic rectangle. Time for a new pass. How long had it been? Six years? Eight, I decided. The boy was eight years old now.

I was struck again by a wash of déjà vu as I pulled into the complex. The buildings never changed. The same gray brick, the same carefully manicured grounds. It looked like the campus square of a small university. But there would be only one student here. One very special student.

Dr. Sidaque met me in the lobby. His limp had gotten worse since the last time I'd seen him. Rheumatoid arthritis. His canted hand slid into mine for a firm shake.

"Welcome, Dr. Michaels," he said.

"How is the boy?" I asked.

"As well as can be expected. None of them do well the first couple of nights here, but we've done our best to make him comfortable. The adjustment can be difficult."

"The whole thing is difficult."

"Yes, well, it can't be helped. Would you like me to take you to your room?"

"I want to see the boy."

Dr. Sidaque led me through the building, and I was struck again by the familiarity of it all. Like I'd never left. "How much does he know?" I asked.

"The standard. There's been no deviation."

Of course. There were protocols. There was nothing left to chance, nothing the sociologists hadn't scripted out decades ago; and we all had our parts to play.

I followed Dr. Sidaque into the activity room. Only the carpet had changed. The boy's face was so familiar I almost didn't need to see it. Blonde, square-faced—the boy looked Dutch, or like my idea of what Dutch looked like. Growing up Lutheran in North Dakota, I'd seen a hun-

dred similar faces staring out from between the pews of my childhood. His blue eyes wheeled toward me, and in them I found his true mark of distinction. They were eyes I'd spent most of my adult life looking into.

"Leave us," I told the caregivers.

The two women complied with a huff, gathering their clipboards and papers. They hadn't liked me last time, and the span of years had done nothing to temper their distaste. It had done something to me though. Yes, something to me.

This would be the last time for us all.

I descended to my creaking knees. "What are you building?" I asked.

"A spaceship," the boy answered, looking up from his model. He had no fear of strangers. Not yet, anyway.

"Oh, a spaceship. That's a fine ambition."

"These are the wave-particle reactors," the boy said, touching a pair of oblong struts that ran alongside the fuselage.

"You're a special little boy," I said. "Do you know that?"

"Yeah."

I smiled at his modesty and then glanced toward the door to make sure no one was looking. The women were gone, the door shut. If there were cameras in the room, I couldn't see them. I leaned forward, putting my mouth close to the boy's ear, and then I said the first thing ever uttered to him that hadn't been written by sociologists and approved by the board. "Our time is short, little one." I said. "I'm dying."

You'll kill yourself at age seventeen, when the voices start. Always such an inventive child, and you'll eat the extract of a plant endemic to the project grounds—we'll never really learn which one. It'll be your own special concoction though, condensed and purified in the chemistry room, a subtle, chalky poison you'll spread over your dinner like salt. It will not be a painless death, and afterward, botanists will be called in to clear away flora that might be dangerous. They'll favor Kentucky blue grass, and it will be laid in a carpet from fence to fence within the grounds to the full exclusion of other species. It's hard to kill yourself with Kentucky blue, they'll reason correctly.

You'll love that grass.

You'll do polynomials by age eight. Permutations of Avogadro's number by eleven. By twelve, you'll have tackled Poincare geometry. They'll teach you biology, history, economics—you'll read the classics. All in an attempt to round you out, keep you sane, because they learned early on that an emphasis on mathematics, to the exclusion of other disciplines, only speeds the process. By seventeen, just before the voices start, you'll begin working on the problem of the tack drive. The physicists will move into the complex full-time. The team will work around the clock, going over your formulas. One of them will go mad, and the psychologists will study that for years—how you could do that to him with just numbers.

You'll never make love to anyone. You'll never cry. They'll find you after the poisoning, writhing in a pool of your own vomit, eyes rolled back in your head, precious mind already baking in a hundred and seven degree fever, leaving, like so many other versions of you, the formulas incomplete.

* * *

"What do you call this one?" I asked the boy. He had turned six today. We'd eaten cake and ice cream earlier, and now he wanted to show me what he'd been working on in the lab.

"I haven't named it," the boy said.

"Why not?"

"I don't know," he said.

The *Drosophila* clung to the inside of the test tube, walking busy little circles on the glass. Blue nutrient agar carpeted the bottom, a thick porous sponge sealing the top as a lid.

"What's the mutation combination?" I asked.

"White eyes, vestigial wings, yellow body."

"Those are good ones."

"At least they're visible," the boy said and held the test tube up to the light for closer inspection. His blue eyes narrowed in concentration. "I was working with a line that had a variant vein structure in the wings, and I had to put them under the microscope to identify the phenotype. I used ether to sedate them. Too little ether, and they'd wake up before I was done and fly away. Too much, and I'd kill them."

"Dead fruit flies can be a problem," I said.

"The bigger problem was when the ether didn't kill them, but *sterilized* them. I'd spend days working out breeding programs and doing set-up on flies that weren't going to reproduce. By the time I realized they were sterile, I'd wasted half a week."

"But these are different?"

"Yeah, ether toxicity isn't a problem. In fact, I don't need to use ether at all, because I don't need a microscope to identify phenotype. The mutations are easy to see. White eyes, vestigial wings, yellow body—what you see is what you get."

"What you see is what you get?" I said, tapping a finger on the test tube. "If you believe that, little one, then you've still got a lot to learn about genetics."

You'll make a breakthrough at age nineteen, adding a full line to the original formula. The future will seem to bloom before us, the final solution just around the next corner. The celebrations in the complex will last for days, and the suits will pass out cigars like new fathers. *Cuckolds*, I'll think to myself.

You'll call me in the middle of the night, and I'll meet you in your study. You'll be naked, crying, tearing out page after page from your library, and I'll know it's over. I'll know.

You'll tell me you can see angels. You'll tell me that Calvin was right, and I'll spend three sleepless nights trying to remember if I told you I was Lutheran.

They'll give you clozapine to ease the symptoms. "Wooden," you'll say to me, crying again—and on the drugs you won't be able to manage so much as a quadratic equation. "My head feels wooden."

And that's the irony, isn't it? The drugs which leash you to reality will prevent you from working your math. Your magic.

You'll forget your name sometimes. You'll forget to eat. You'll walk the corridors in superheated manias, occasionally scrawling mathematical hieroglyphics across the walls in red magic marker. You'll put the solutions on doors, looking for that rapture of stepping through to the other side—a symbolic gesture. The teams will take to calling it your graffiti, but each mural will be photographed before it's painted over, and mathematicians will go over the formulas meticulously looking for hints of rationality. Increasingly, rationality and your formulas will have less in common with each other, until finally the archaic runes you scribble will carry meaning only in your mind. You'll drift further away from this world into your own.

Until finally nothing reaches you at all.

"Dental X-rays." I answered.

"For what?" the boy asked.

"For your third front tooth."

"What do you mean?" the boy said, probing the gap with his tongue. His top two front teeth were missing.

"You've got what's called a mesiodens, an un-erupted central incisor."

"My gums feel fine. How do you know I have it?"

"You usually do."

"What causes it?"

"Genetics. It's not all that rare. About one percent of people have supernumerary teeth of some kind. It happens."

"So I'm going to have an extra tooth?"

"Probably," I said.

"But maybe not," the boy said slowly.

"There's not a one-to-one association between gene and expression. Sometimes, instead of a mesiodens, it expresses as extra cusps on the back of your top teeth—what's known as 'talon teeth' because they look like an eagle's claw. Sometimes in identical twins, one twin will have the extra cusps, and the other will have the extra tooth. Same genes, different expression. The trait doesn't have a particularly high concordance rate. You don't have talon teeth though, so now we need to do x-rays to see how things are arranged in your gums."

"What will they do for it?"

"Surgery, probably, unless the tooth is posterior enough to allow both normal incisors to erupt."

"I still don't understand."

"The gene doesn't really cause a third front tooth. It's more accurate to say the gene causes certain developmental disruptions in the mesenchyme that affects the dental lamina in complex ways. Usually though, that's an extra tooth."

"I don't want surgery."

"I don't blame you. It all depends how everything is arranged in your gums."

"If it's the same genes, why would it be different each time?"

"Oh, John, that is the question, isn't it? That is the question."

* * *

You're left-handed, usually. The lefties have more problems. Emotional problems. Memory problems. They are also the more gifted. The original John was left-handed.

You don't like milk. You don't sleep well. Your IQ ranges between 126 and 132, which is high but doesn't explain what you're able to do with numbers. It doesn't explain the tacke drive.

Your fingerprints differ each time, as does the rotation of the cowlick in your hair. You always have freckles, but the pattern changes. Very often, but not always, you have a mole on your cheek.

Seventy-two out of ninety-seven times you ended up as so much dissolution in nutrient media—having ceased dividing before the blastocyst stage. Other times you failed to implant. Once, you were a miscarriage, a corruption of the process, a monster.

Those versions of you who remained were blonde, blue-eyed, square-faced—Dutch looking. Or my idea of it. Every time.

The boy woke up crying and puking in the recovery room. I held him and rocked him until his tears subsided into a slow series of hitches. He moaned.

When I thought he'd gone back to sleep, I tried to lay him down, and he clutched at me, crying again. He wanted to be held. His mouth was stuffed with gauze, and he tried to take it out. I stopped him. When I tucked it back under his upper lip, I got a look at the wound—dark hamburger and stitches. The mesiodens had been most unfortunately positioned. It had been necessary to remove most of his maxillary baby teeth. Poor kid.

The moaning started again. Holding him like this, he was no different than any other hurt child. Pain is the ultimate equalizer.

I'd comforted so many before him just like this. He would be the last.

"Hurts," he moaned, his breath fetid and sick.

"Shhh, don't talk, little one. Don't say anything. Go to sleep."

The boy continued to moan, but his eyes remained closed. I bent closer, and his left hand reached for mine. I kissed him softly on the forehead.

"I love you," I said.

The next few days were hard on the boy, and he lost weight. I brought him ice cream, but he barely touched it.

On the third morning I found him standing at the window looking out over the courtyard. Cement and Kentucky blue. My skin crawled.

His eyes were sad when he looked at me. They were eyes older than his ten-year-old face. Most of my hair had fallen out from the treatments, and I wondered how I must look to him: a thin, balding old man. He turned back toward the window.

I put my hand on his shoulder and felt the bones beneath his skin. I followed his gaze out the window at the gathering dusk. Beyond the glass, the sunset lay buried in a dark bank of cloud, shadows deepening between the dark hills in the distance. It struck me as oddly familiar, like a face seen on a father, and then a son. "November skies of lead and gray," I whispered.

"What?" the boy asked.

"A poem," I said. "Something I remember from . . . somewhere. November skies of lead and gray, I love this dying of the day."

On the hills, dark trees swayed in the wind, undulating like a living thing.

"Where do you go when you die?" the boy asked.

"I don't know."

"Do you believe in God?"

"Almost every day."

"What do you believe most about him?"

I looked closely at the boy. "That he sticks his finger into the mind of every child conceived, and gives one good counterclockwise swirl."

"What do you mean?"

"I mean there are mysteries still. Unknowable things."

"I don't want you to die," the boy said.

"We all must die, little one. We're each given only so much time."

"Not all of us."

"All of us."

"No," the boy shook his head. "Some of us get extra." The boy's eyes changed. "Who was he?" he asked. His voice was odd.

I realized who he meant. Who he had to mean.

"He was a scientist," I said. "A physicist by training, but the media called him a mathemagician. Ultimately, he was a singularity."

"And he invented something," the boy said.

"It would be more accurate to say he half-invented it."

"What was it?"

"It had many names, but he called it the tacke drive. Some physicists still call it the god engine, and it was supposed to take humanity to the stars."

"Was he a great man?"

"He was."

"Will I be great, too?"

"No, little one, you will not."

The boy turned back to the window. The sky had completely darkened before he spoke again. "But I am him."

"You are yourself," I said.

"Mathematics is metaphor," you'll tell me. It will be something I have heard before, in those exact words, in that exact tone—and so I'll listen carefully to what you have to say, searching for concordance here, too, and you'll rub the teenage acne on your chin, pacing in front of the blackboard. "But this is real," you'll say. "This is testable."

You'll pick up the chalk, pointing to the schematic you've drawn—a thing of wonderful, opaque beauty. It could be art, or science. I won't be able to tell.

"The local space immediate to any antenna is subject to both wave-physics and circuit physics," you'll begin. "But tucked between the near-field and far-field maths is a tract of scientific real estate that hasn't been so systematically explored."

You'll speak quickly, excited by what you are revealing. Your mention of

an antenna will worry me, though, because antennas are a common fixation among the disturbed. I'll wonder if you're hearing voices already.

"Tesla didn't follow his work through to its obvious conclusion," you'll say. "Maybe he didn't fully comprehend the underlying physics, but then how could he? Quantum mechanics, as it now stands, tells us that a resonant atom acts as if expanded to the area of its entire near-field region when viewed in terms of its function as a half-wave antenna. This is accomplished by the accumulation of a virtual-photoelectric field. Do you understand?"

I'll nod.

"It's well documented that atoms disperse half the light they contact," you'll continue. "But what about the other half? When atoms resonateselectromagnetically at a frequency identical to the incident light waves, then the atom's oscillating field will store the attendant EM energy. And when this field is phase-locked with the incoming light, the atom's field will cancel most near-field E. That energy doesn't disappear; Einstein proved that. Instead it's stored up inside the atom. Thus, tiny atoms can pull energy from huge undulating light waves."

"You lost me," I'll say.

But you won't even slow for breath. You'll push forward, rushing to get it all out. "And the really strange things start happening when you apply this to Beaty's work on coupled-resonator theory. His quantum mechanical coherent systems could almost be thought to analogize atom photon transfer." Your hair will fly around your head as you turn back to the blackboard, pointing again with the chalk. "Taking this into account, he's already theorized it might be possible to increase transmitter modulation beyond the carrier frequency. You could receive a signal at the resonator without the use of radio transmissions."

"Radio?" I'll say, wondering if I missed the shift in subject.

"But the fascinating thing, the incredible thing," you'll tap the chalk on the board. "Is what would happen if, after such a circuit were oscillating, the transmitter were removed from the loop. The atoms within the near-field would no longer be able to radiate the incoming waves, and if the transmission happened to intersect the field of a small antenna—in other words, some mass of molecularly aligned atoms phase-locked to incoming long waves—then logic requires the antenna change from oscillation to effluxion. Instead of absorbing E, it would periodically discharge. It might be possible to construct a heat source from such principles."

"A heat source," I'll say.

"Or a simple propulsion source," you'll say. "Or a bomb."

"From mere light," I'll say.

"And atomic resonance."

When I leave, I'll be unsure what to think. I'll shut your study door softly behind me and walk to my room. That night the physicists will look at your schematic, and they won't dismiss it out of hand as I expect. They'll photograph the blackboard. A team will spend a week crunching the numbers before giving up with a collective shrug, saying they needed more data. "We have no idea if he's right," they'll say. "Maybe in another century we'll have the technology to test it."

The next time I see you, you'll be in your underwear, sweating in front of the same blackboard, mania burning in your eyes.

"What is this?" I'll ask, pointing at the mathematical symbols. The old schematic is gone, erased, supplanted by something more purely mathematical.

"A proof," you'll say.

"What kind?"

"It's a proof of God's existence."

"That's a worthy ambition," I'll say. I will pull a chair out from a table. I will sit. I will wipe my eyes with my handkerchief.

But for all my sadness, this new work, too, will be taken seriously by the teams.

"It's brilliant," Mike Sebrams will tell me the following day, once his mathematicians have had their time.

I'll wave that off. "Do you think it is useful?" I'll ask.

"No, I said brilliant, but the work is self-referential. It proves itself, given itself, through eighteen steps. But, given that God exists," he'll say. "I have no doubt that this is *how* he would exist."

The boy's left hand slid into mine. His blue eyes brimmed with tears, and when he blinked, they fell in twin bursts down his cheeks. This time, I was the sick one needing comfort.

The hospital room smelled of antiseptic, and death. Or perhaps the latter was my imagination, just me getting ahead of myself again. Lately, it had sometimes been difficult for me to tell where I was, *when* I was. Things had begun to blur; but now, here in this bed, looking up at the boy, there was no mistaking that our time together was coming to a close.

I tried to sit up but the pain was too much. My throat was sore from all the talking. Hours of talking.

"Why are you telling me all these things?" the boy asked.

"Because I love you," I said. "And because I'm tired of knowing things about you which you do not."

"These stories cannot all be true."

"They all happened, each one. A catalogue of your possible futures. You're the youngest, and you will be the last."

"Why I am the last? Because you are sick?"

"No, because the experiment is a failure."

"What am I going to do without you?" he said.

"I don't know. That will be something new. I have always been here, each time. I don't know what will happen."

"But you seem to know everything."

"Not everything." I touched his forehead, swiping away a blonde lock. "Only the unimportant things. The small things."

"And the big things?"

"We're just learning to ask the right questions."

"Then I have a question," the boy said. He wiped his eyes with the back of his hand.

"A big one?"

"Who are you?" the boy said. "To me. Who are you to me?"

I sighed. Not just a question then, but *the* question, finally. I took a deep breath. "In all the ways that matter, I am your father," I said. "And in all the ways that don't, I am your son."

"I don't understand."

"We're kin, you and I. I knew you suspected."

"Are we . . ."

"No," I said. "Not the same, you and I. Not like you and the others. There was a girl at Stanford sixty-eight years ago. She was young. She was in love. And there was a young physicist, not yet sick, already making his mark on the world. By the time I was born he'd . . . I never got to meet my father. He never held me. But I've held him now, versions of him, dozens of times."

"You're saying . . . I am your father?" There was horror in his voice.

"It is semantics," I said, shaking my head. "We have half our genes in common, like any father and any son, and I don't think it matters which of us possesses the ancestral set, and which the descendant. It is enough to say our genes have a common source. Water doesn't care which way the river flows, only that it reaches the sea."

"What will I do now, without you?" the boy asked.

I clenched his small hand tightly. "You have a mind like a detonation, little one."

"You are my only friend," he said.

"And that is why I'm telling you this," I said. "Your time is limited, like mine is limited. That is my gift to you. This knowledge. You only have a few more years. Don't waste it on formulas. My gift to you is yourself." O

THE WEREWOLF'S ABSOLUTION

Always when he feels the paws forming under his hands,
he reaches for the revolver
and fumbles the six absolutions into their holes.

But always by the time he can load it,
he has no fingers left to pull the trigger.

—William John Watkins



Lois Tilton's last story for *Asimov's*, "The Gladiator's Tale: A Dialogue" (June 2004), was nominated for the Nebula Award. Where her previous story took an alternate look at Spartacus, her newest tale takes a sideways glance at . . .

PERICLES THE TYRANT

Lois Tilton

Under a white-hot summer sky, the waters of Panormos Bay glinted with reflected sunlight. Wreckage rocked slowly on the waves, the shattered timbers of ships. When the air stirred, it brought with it the sick odor of drowned men. At the harbor, chained Carthaginian prisoners sweated at their labor repairing fortifications, naked men burned almost black by the relentless sun. Pericles and I were supposed to be guarding them, but we had retreated slightly from our assigned post to the shade of a broken column, which offered a little relief from the heat. While the prospect of military service had first appeared exciting to a pair of sixteen-year-olds, the reality of leaning on a spear for hours in the sun had diminished our enthusiasm.

Although we were fellow Athenian citizens and members of the same age-group, I did not meet Pericles son of Xanthippos until the Persians burned Athens and we all fled to Sicily to found a new city. His father had taken him away into exile four years earlier, when the older man had been ostracized. This was a custom the Athenians had in those days, because they feared the rise of tyrants. But when the Persians threatened to attack the city, Athens recalled all its exiles home.

I once asked Pericles if his father was bitter over the lost years, but he said proudly, "They only ostracize the men who really matter. Everyone

in my family has been exiled." They were aristocrats, the Alcmeonid clan, though Xanthippos in his ambition had connected himself to the popular faction that was then rising into power.

My own father was no aristocrat and his own political leanings were conservative, but as members of the same age cohort, Pericles and I both were sent for military training before the Persian invasion, though normally boys our age would still have been consigned to the care of our schoolmasters. But we were given no chance to test ourselves against the Persians. Athens' allies, led by the Spartans, deserted us, and the generals made the decision to abandon the city rather than become slaves to the Persian Great King. Now all Athens was in exile, and there were no schools in Sicily's Panormos Harbor where our fleet had just defeated the Carthaginians.

We called it an act of the gods that had brought our fleet of Athenian exiles, fleeing from the Persians, into Panormos Bay just as the Carthaginians were about to make their assault on Syracuse, then the foremost of all the Hellene cities in Sicily. In fact, there was a very human element in the timing of the enemy fleet's appearance. Carthage was a Persian ally, and the Persian plan was to move its vast army and navy against the cities of mainland Hellas while Carthage at the same time would sail against Syracuse to prevent its tyrant Gelon from sending us aid. As it happened instead, the Athenians refused Gelon's aid, then arrived in Sicily just in time to save Syracuse. This is what we tragedians call poetic irony.

Watching the chained Carthaginians hauling heavy blocks of stone into place, I reflected that the poets were right when they said a brave death in battle was better than slavery. I pitied the captives their fate, but not very much, because after all they had sailed here to defeat and enslave the free men of the Hellene cities on Sicily. And they were barbarians—appallingly and fascinatingly alien to any properly raised Athenian.

"I hear they sacrifice children to their gods," I said to Pericles, staring at the men from Carthage. "They throw them alive into the fire."

"My father says their commanding general threw himself onto the flames when he saw his fleet being defeated," Pericles replied.

I shivered with delighted horror. "Think of that scene on the stage! The ultimate sacrifice!" Then *hybris* made me add, "I write tragedies." Which was true if it didn't mean actually finishing one, or having it produced on the stage.

"Let me hear something, then," he challenged me.

"I'm still working on this one," I told him, but in fact I was rather pleased with my efforts. So I took an actor's stance but spoke the lines instead of singing them properly, for fear of the taxiarch in charge of the guard overhearing. "I call it *The Trojan Exiles*. It starts with an oracle brought from Delphi:

*Why do you stay, doomed men of Troy? Flee while you can,
As far as you can, abandon your homes, your high stone towers,
For fire and pitiless War, driving out of the west,
Will leave them all in ruins.*

"You didn't make that up!" Pericles interrupted me. "It's just the oracle Delphi gave Athens about the Persian invasion! Everyone knows it. All

you did was change Athens for Troy, and east for west. If you want to write a tragedy about the war, why not just say Athens?"

I objected rather hotly, "A tragedy has to be about the gods, the ancient heroes—sacred things. Not something that just happened the other day!"

"That's not so. Didn't Phrynichos or someone write a tragedy, *The Capture of Miletos*, after the Persians sacked the city?"

"And the generals fined him a thousand drachmas for performing it. I don't have a thousand drachmas." In fact, I doubted there was an Athenian in Sicily who could raise a thousand drachmas at that moment, with everything we owned in ashes, except what we brought with us from Athens on the ships.

"Write a victory ode, then."

"My father says we shouldn't be celebrating a victory, not with Athens burned to the ground and the Persians occupying all Hellas."

Pericles dismissed this opinion with the superior tone of one whose father is a member of the Council of generals. "That's backward thinking. We need to look forward. We're in a position now to take over all of western Sicily from Carthage. Within a few years, we can be ruling the entire island. There aren't any Spartans to block our ambitions here."

"What about Syracuse?" I reminded him. "My father says Gelon's army is larger than the Spartans'. He says that if the Hellenes had accepted his alliance against the Persians and stood together with him, we could have beaten them." This was still a painful issue among the Athenians. Gelon of Syracuse had offered his fellow-Hellenes the aid of three hundred triremes from his own fleet and twenty thousand hoplites—a greater force than any other city could muster, but on the unacceptable condition that Gelon be named commanding general.

Pericles spat angrily on the ground at the mention of Gelon's name. "If our Spartan allies had stood up with us instead of deserting, we could have beaten the Persians! We didn't need help from Syracuse!" He took on the tones of an orator, as natural to him as breath. "All Sicily is ruled by tyrants, and they have to fight their wars with mercenaries, because they can't trust their own people. The Spartans were at least free men. Not like them." He pointed to the chained prisoners with a movement of his spear. "My father says Carthage fights its wars with mercenaries and foreigners—and look at the result! But we are Athenians, and the people rule us, no one else."

"Those are fine words," I retorted, "but Athens, what's left of it, is a heap of ashes ruled by the Great King of Persia, and we're nothing but homeless exiles on Gelon's doorstep."

Pericles set his jaw in a way that was to become familiar to every citizen in the years to come. "We'll build a new Athens, bigger and stronger than the old one. Gelon will be lucky if we let him keep his bath-boys and dancing girls."

I said nothing in reply, for I could see the taxiarch of the guard coming purposefully in our direction. But of course I knew what my father would have said, for this, too, was a heated issue among the exiled Athenians. The conservatives insisted that there was one and only one Athens, the ancient city of Athena, and it would be sacrilege to bestow that sacred

name on any other place. A colony, yes, we would have to found a colony here in Sicily, a colony of exiles, but it would never be another Athens! We might have had our victory, for what it was worth, we might have defeated a Carthaginian fleet, but we had fled from the Persians, fled our ancient home, and we could never go home again as free men.

Yet I could find consolation even in this, for surely it was the ideal matter for a tragic poet!

I am becoming an old man now, so I trust I will not offend the gods by my pride when I say that as a youth I was renowned for both my good looks and the clear purity of my voice. By the age of sixteen I had often seen my name written on the gymnasium walls in charcoal: *Sophocles is beautiful*. But there was more involved than my personal charms when I was chosen to lead the boys' chorus at the dedication of the new Sicilian Athens.

Xanthippos the general had observed the friendship growing between his son Pericles and the son of Sophilos the armorer, and he invited my father to be his guest at dinner. Within a very short time, my father had ceased to defend his most conservative views and was cultivating a new acquaintance among the powerful men of the democratic faction. When the oracle approved of Athens as the name of the new city, he no longer insisted that the goddess would curse us for it.

Before our arrival, the place had been called Panormos—All-Harbor. For any other people, such a name might have been considered well-omened, but we were Athenians and most of us wanted to remain so. Like Pericles, they argued, "If we call our city Panormos, in another generation we will have forgotten who we were. There will only be Panormans living here, and no Athenians!"

Of course such a matter is properly left to the gods, but there was a difficulty for a time in obtaining a reliable oracle. The priests of Apollo at Delphi had gone over to the Persians at the invasion, and it was not likely they would issue a ruling favorable to Athenian interests. So the question remained unresolved until we learned there was an ancient oracle sacred to the god at Cuma in Italy. We duly sent envoys to Cuma, where they received the reply:

Burned black the olive tree Erechtheus planted,

Fallen the tower where the owl had her nest.

Her flight will end where Etna's peak is crowned with snow,

And fruitful groves beneath its slopes will welcome her.

The owl being the symbol of Athena and Etna the most prominent landmark in Sicily, the oracle's message was remarkably clear. So with the god's approval, we prepared to dedicate the new Sicilian Athens.

I was particularly proud to be leading the chorus on that occasion, since the ode we were singing was composed by the great poet Aeschylus. Pericles, who had been chosen for the chorus on the basis of his family, not his beauty or his voice, insisted that the ode gave too much importance to Gelon of Syracuse.

The tyrant of Syracuse had of course been grateful to the Athenian exiles for defeating his enemies, and in thanks he had given us a hundred bulls

for the sacrifice dedicating our new city. But he had also hinted strongly that it would be fitting to declare him the new city's Founder—a hint the Athenians ignored. Imagine having to worship Gelon of Syracuse once a year! It was bad enough when he appeared at the festival wearing a robe of deep Tyrian purple embroidered with gold, and a gold victor's crown.

"Like he thinks he's the Great King," Pericles whispered under the sound of the processional flutes. "As if he were the one who saved us from the Carthaginians!"

"Quiet!" I insisted. This was no occasion for sacrilege, when we were invoking the protection of the gods on our new Athens. Yet it was hard to keep a straight face at the sight of Gelon in his purple robe, beaming with satisfaction when we came to the verses describing Odysseus finally coming to land after the ordeal of his long voyage:

*As noble Alcinoös welcomed the storm-tossed voyager
Into the gleaming grandeur of his royal hall
Where a seat of silver fit for royal guests
Awaited him, the shipwrecked stranger,
So noble Gelon welcomes Athens to his shores
And this well-harbored refuge from her enemies.*

But the rest of the ode was quite fine, particularly the verses in honor of Poseidon, who presided over our victory at sea. After the dedication, everyone was full of acclaim for Aeschylus, calling him the foremost poet in Athens—in all Hellas. However, this praise was cut short a few weeks later, when we learned that Aeschylus was moving to Syracuse to take a place at Gelon's court.

His desertion stung civic pride, and suddenly Athenians were denouncing the poet for taking Gelon's gold in exchange for those verses. In the Assembly, there was talk of ostracism and revoking Aeschylus' citizenship, but that came to nothing, as most idle notions in the Assembly do when the people have no leader to tell them what they want. The fact is, for years, long before the Persian invasion, the wealth of Syracuse had been drawing the best poets, musicians, sculptors, and other fine artists from all over Hellas to the tyrant's court. Gelon was generous with commissions, since he wished to be known throughout the world as a patron of arts and learning.

When Pericles learned of Aeschylus' desertion, as he called it, he took me aside and said gravely, "Sophocles, if you swear to me now that you will remain here in Athens, I promise that when you complete your first tragedy, I will undertake myself to produce it." So solemn he was, so confident, that I did swear what he asked, although I admit I was tempted once or twice by the reputed glories of Syracuse, with all the teachers of music and poetry gathered there—and now Aeschylus!

But Pericles kept his word. He has always said it was his own idea to re-establish the Panathenaen Festival in Sicily, and I believe there is truth in his claim, for I remember him insisting to his father and anyone else who would listen, "We need a popular event to restore the glory of Athens, with every kind of competition—poetry, songs, and games. It needs to be the best in everything, so the best competitors will come here, instead of to Syracuse or the old festivals in Hellas."

So persuasive he was, even as a boy, that Xanthippos carried the proposal to the Assembly. When he demanded, "Should we let Athens take second place to Syracuse?" there was a great roar of denial from the people, and the Festival was established, disregarding the expense.

As everyone knows, Pericles was right. Under Persian rule, the old Panhellenic festivals declined, even the games at Olympia, while the Panathenaea gained every year in renown. Before long, we had the best artists and athletes coming to Sicilian Athens to vie for the sacred olive crown, while the Festival grounds became more magnificent every year with statues and shrines and dedications to the winners.

Even more, the athletes and artists did not come just to compete, but to settle in a place free from Persian rule, and it was always Athens who gave them the best welcome. Indeed, this was another suggestion of Pericles, to offer Athenian citizenship to all the winners of a crown at the Festival, without even payment of a fee.

Aeschylus returned to compete at the first Festival, of course, with his *Death of Achilles*. And though he was only eighteen years old, Pericles fulfilled his promise to produce my first tragedy, *The Women of Carthage*, which I based on our victory at Panormos Harbor. It was Pericles who had convinced me that all tragedy did not have to be set in the ancient past, or at Troy. I even used the scene with the Carthaginian general Hamilcar throwing himself into the fire.

But it was Phrynichos, the old master, who won the crown with his magnificent *Spartans*, about the doomed stand of the Spartans against the Persian host at Amyclai, where the Spartans died to the last man. Against such a work, the last he ever composed, I could not even wish to win, but I cherished the fact that I defeated the great Aeschylus with my first produced tragedy, coming in third out of six dramas entered. I was young then and more full of *hybris* than the sense to realize the Athenians were punishing their greatest poet for deserting them for the court of the Syracusan tyrant.

Not many years later, Gelon died under unclear circumstances, and the democratic faction in Syracuse, supported of course by Athens, took control there after a brief uprising. But without a wealthy tyrant to sponsor artists and athletes, to commission statues and paintings and heroic victory odes, the influence of Syracuse in such matters faded rapidly, while the best gathered in Athens, where the people ruled.

From ancient times, even before the Trojan War, our forefathers feared the bands of armed pirates raiding cities up and down the coasts, so they thought it wise to settle at a distance from the sea and fortify the heights. The acropolis of Athens in Hellas held off our enemies until it was finally sacked and burned by the Persians, who threw its defenders, living and dead, from the top of the rock. Thus perished most of the conservative faction who refused to trust their fates to Athens' naval strength rather than its ancient walls.

So when the Athenians came to Sicily, it was the places with good harbors where we settled, driving out the Carthaginians who had long held the western end of the island, for it was now undeniable that the real

power of Athens lay in our fleet. But those triremes had been built with the revenues of the Laurion silver mines in Attica. In Sicily we had no silver mines. We had left most of our wealth behind in Athens, to burn.

Therefore the first concern of the Council of generals was to find money to pay the rowers, so our triremes would not be sitting helpless in the harbor if another Carthaginian fleet appeared. If a city has a war fleet and a pressing need for money, the obvious answer is piracy. Athens was particularly well placed for this enterprise, because we now occupied all the harbors that Carthage had established to protect their trade routes. Merchant ships from Africa sailed regularly to the wealthy cities along the western coast of Italy and back again with silver from their mines on the island of Sardinia.

The Athenian generals' plan was to lease the city's triremes to any citizen who could raise a crew. This would not only enrich Athens from the city's share of the proceeds, it would encourage the practice of seaman-ship. But while promoting piracy against the Carthaginians and other barbarians, they decreed that any ship from a Hellene port would find a safe harbor in Athens, for they also wanted to establish the city as a center for legitimate trade.

It was impossible, of course, that the Carthaginians would not retaliate. A war was inevitable. At first, it was limited to conflicts with the Carthaginian colonies on Sicily. Then came an unexpected opportunity to expand Athenian influence beyond the island, when the Cumaeans appealed to us for aid. Cuma had a claim of guest-friendship on Sicilian Athens, since their shrine of Apollo had given us such a favorable oracle. It is a Hellene city, established in ancient times, but it was isolated on the western coast of Italy, so the Cumaeans were surrounded by barbarians with whom they were often at war. The strongest of these Italians were the Etruscans, longtime allies and wealthy trade partners of Carthage, who had sent a fleet to assist the Etruscan attack on Cuma.

We were of military age by that time, Pericles and I, and eager to play our part in the fighting. Syracuse and Athens sent a joint naval force under the command of both Gelon and Xanthippos, since neither city would yield precedence to the other.

When the battle was over, the Etruscan war fleet lay at the bottom of the sea. Some men have claimed that the sea battle at Cuma was the greatest ever in history, with the fleets of four great states engaged. It was certainly a notable victory, and we dedicated rich trophies at the shrine of Apollo at Cuma in thanks to the gods for it.

It also opened the prospect of new conquests, the islands of Sardinia and Corsica, which a treaty between Carthage and the Etruscans had long ago divided between them. There would be no better opportunity to take the Carthaginian mining colonies on Sardinia for ourselves.

The Cumaeans, unaware of these Athenian ambitions, gave a splendid feast to send us off after the battle. I think it must have taken every dining couch, every vat of wine, every gold dish, and certainly every flute-girl in the city. It was afterward, in the best room of the best brothel in Cuma, that Pericles explained his vision of Athens' future to me, beginning with the question: "Tell me, why couldn't we defeat the Persians?"

"They were stronger than us, they had more ships, more soldiers."

"They were stronger than us because each city in Hellas would only look out for its own interests, but the Persians were united under one man."

"So you're going to put Athens under a tyrant, after all? Will you nominate Gelon?"

He glared at me for not taking him seriously. Everyone else took him seriously. "A tyrant takes power by defeating all his enemies, then he serves only himself. In Athens, the people hold the power, they elect the generals. But look at Cuma, look at all the Hellene cities in Italy. They're always at war with Etruscans and the Latins—or each other. Think of how Croton sacked Sybaris! And none of them would help the Cumaeans—they had to come to Athens for aid. So what will happen after we sail away? When the Carthaginians come back or the Etruscans build themselves another fleet?

"What the Hellenes need—what they've always needed—is a leader. Not a tyrant, someone with the vision of a common good. Wouldn't all of us be even stronger, with all our forces committed to the same ends?" He was practicing his speech, of course. "The Hellenes in the west would be united in a league of free cities, and no empire would ever dare try to make us slaves."

In Athens it had always been the custom that only citizens over the age of thirty could speak in the Assembly. But because Xanthippos was ill with a festering wound, it was Pericles who stood up to argue the case for the new alliance, though he was not then over twenty-three years old. The Assembly was so taken with the prospect of new conquests in Sardinia and Corsica that they overlooked the age of the speaker.

Within ten years, there was not a city in Sicily or Hellene Italy that did not acknowledge Athens as the leader of the Free Hellene League.

Fortunately for me, there was no law restricting the age of poets. With *The Tyrannicides*, I first won the sacred olive crown at the Panathenaean Festival. By the time I was thirty, I had won more prizes with *Betrayal at Salamis*, *Theseus the Tyrant*, *The Chaining of Typhon*, and *Charybdis*. More than one of my dramas, I admit, was composed at the suggestion of Pericles, to support his political causes—particularly the expansion of our naval power.

In his second term as a member of the Council of generals, Pericles suggested that I write a tragedy for the Festival attacking the Carthaginians for their practice of human sacrifice. He was trying to gain popular support for an invasion of Africa, which came to nothing later that year when the Carthaginians proposed a peace treaty.

But by then I had already written *The Mothers of Carthage*.

Nothing like it had been seen before on the stage. The scene was dominated by a monstrous bronze image of the Carthaginian god with a fire pit blazing at its feet. The chorus of Carthaginian mothers each carried a child in procession across the stage, begging in vain for its life to be spared.

O cruel, devouring god!

*O savage sacrifice!
See! A mother's child
Torn from loving hands,
From weeping breasts!*

But at the implacable order of the Carthaginian priest, one by one, keening piteously, they threw their own children into the flames.

That year, Aeschylus had entered *Prometheus* in the competition, a magnificent tragedy in the old form, heartbreakingly intense, with verses that sang even on the written page:

*The waves lament as they break upon the shore,
The ocean moans in pity for your suffering.*

But the Athenians had grown used to tragedies that sang of living men and cities, not ancient heroes and gods. They voted overwhelmingly to give the olive crown to my work. I have never been so reluctant to accept a prize, knowing that another man deserved it more.

Aeschylus never wrote another tragedy after *Prometheus* and became a rather bitter old man. I tried to convince him to compose again, but he refused. "The people have chosen what kind of dramas they want. In my day, tragedy was meant to honor the gods, but now you pander to politicians and promote their wars on the stage."

"You wrote dramas and odes at Syracuse to honor the tyrant," I reminded him.

"So I did, but the gods got no honor from it, nor did I. I came back to Athens to find the true spirit of the god, but this is not the Athens I knew, where the stage was made of plain wood and the best men judged who won the prize."

So it had once been in that other Athens, when the best men ruled, as they called themselves—the well-born men from the great aristocratic families like the Alcmeonids. Those were the days Aeschylus looked back to, when the city's strength was in the hands of its bronze-armored spearmen, and only the poorest class of men, despised by the rich, pulled an oar on the rowing bench. Now there were no "best men," and the law made no divisions into property classes—all citizens had an equal vote in the theater as well as the Assembly. Not a man was forced to beg or labor for wages, not if he could row in the fleet.

No, I could not regret the changes as Aeschylus did. The theater now was stone and the stage framed with marble columns instead of wood. The temples of the gods were marble, too, adorned with sculptures carved by the most skilled artisans in all Hellas. Everywhere stood monuments to the greatness, to the glory of Athens.

I had prospered with the city. With plenty of Carthaginian slaves available, my father had soon been able to start up his bronze works again, and with all the demand for armor for Athens' wars, his business grew rapidly. Our allotment of fertile Sicilian farmland also yielded a rich return, crops of wheat heavier than anyone had ever been able to grow in rocky Attica, and fruitful vines. Added to all this wealth was the bounty we won in the wars, the spoils of battle and conquest.

Not only citizens had prospered. Athens drew foreigners from all the Hellene lands to Sicily with its promise of wealth and opportunity, and

they enriched the city with their taxes and fees. I stood every day in the agora and saw abundance all around me, inhaled it in the scent of fresh fish, the smoke from the altars, an enticing waft of a courtesan's perfume. The harbor was crowded with ships, the shops were full of goods. In the market merchants cried out their wares, and customers crowded around them with purses full of good Athenian silver owls. Men and boys exercised in the gymnasias, and citizens debated public issues, raising their voices to be heard over the din of commerce, the shrill songs of schoolboys at their lessons, and the clink of chisels on marble as the artisans labored to adorn the temples of the gods, who were surely looking down upon the city and approving all they saw.

But amid it, the great voice of Aeschylus was silenced. I had a copy made of his works, and while I was on my travels I read them all over again, recalling his words: "Tragedy was meant to honor the gods."

I had never intended to travel, and it was all the doing of Pericles. Soon after my Carthaginian tragedy was acclaimed, I was summoned to the Council of generals. Pericles took me by surprise with his announcement: "Sophocles son of Sophilos, we've chosen you as a member of the peace delegation to Carthage." Of course, such were the duties any citizen could be expected to perform. But I suspected I had been chosen for a more specific purpose.

"You surely don't think they're going to welcome me in Carthage after my latest drama? It looks like you want to sink the peace talks before they even start!"

He laughed, for we knew each other's minds. Pericles was more interested in taking over Carthage's rich territories in Hispania than peace. But the Carthaginians were desperate for it, and we ended up signing a treaty that gave Athens all the territory north of Sicily, including the Hispanian colonies west to the Gates of Heracles, while we left Africa to Carthage. The war was ended, and it could only be called an Athenian victory, so that Pericles had no grounds to complain, despite his thwarted invasion plans.

If I had returned to Athens at that time with the rest of the delegation, I think my life would have gone on much as before—producing tragedies and helping my father in the bronzeworks. But while I was in Carthage, one of their *suffetes*, a member of their ruling council, made a point of criticizing my dramas, saying, "It's clear you know nothing of Carthage and only listen to the evil rumors spread by our enemies."

Now this was not quite so. I had been in the Carthaginian colonies on Sicily and seen the *tophets* where they used to bury their human sacrifices. Yet who has not heard the tale about the tyrant Phalaris of Acragas, roasting men alive in a bronze bull—indeed, I had written a tragedy about it, which did not win a prize. But this does not mean I supposed such a story was true.

So I was willing to believe I might have distorted the truth about Carthage. Thus it was that when the rest of the delegation went back to Athens with our treaty, I remained there as a guest of Barca, the *suffete*. It was ten years before I reached home again, for from each place I was drawn to the next nearest, and the world is a larger place than I had re-

alized. From Carthage I traveled to Tyre, and from Tyre to the court of the Great King of Persia, and finally to the conquered lands of Hellas and the ruins of the Athens in Attica, which the Persians had never allowed to be rebuilt. But all this is in my *Historia*, which any man can read for himself, and there is no need to repeat myself now.

But of all the strange sights I saw, I had the greatest surprise when I finally took ship from Persian Hellas to return home to Sicily, to Athens. My ship was approaching Brentasion in southern Italy when it was met by an Athenian trireme that escorted it into the harbor. There was also a representative of Athens in the customs office, checking the cargo as the slaves offloaded it. "You have to pay duty to Athens on cargo shipped to Brentasion?" I asked the captain in disbelief. Of course it was no different in the Persian empire, where everyone paid tribute to the Great King, but this was supposed to be free Hellas!

"Athens takes a cut of everything now," he complained, spitting on the wall of the harbor. "But *you* ought to know that." I, an Athenian.

Indeed, as I continued my homeward journey, the scene was repeated in almost every port the ship touched—Athenian war ships, Athenian taxes. And there were horrified rumors in every port: how Athens had recently punished the city of Heraclea for refusing to pay the annual fee for the protection of their trade at sea. "They burned Heraclea and sold everyone into slavery."

"But isn't the fee what everyone agreed to? Doesn't the fleet protect your ships from pirates?" I asked.

"What pirates? The only pirates in these waters are the Athenians!"

"The Etruscans? The Latins?"

"The Etruscans have no more navy, their sea-empire is dead. It all belongs to the Athenians now. And the Latins all live in the hills, they have no ships to bother anyone."

At first I resisted blaming my city. These waters had been made safe for everyone by the Athenian fleet. There was peace—no more enemies, no more pirates infesting the trade routes. Should these cities not all be grateful to Athens?

At first I thought: Pericles was right, the Hellenes need a single leader to keep them from quarreling with each other.

But when at last I returned to Athens, I did not find myself in the city I thought I had left. Or perhaps I was only seeing it with new eyes after my travels through so many different lands.

My family and friends, of course, all welcomed me home, and I found my son, who could barely speak when I left him, reciting the verses from my tragedies. But there were other changes I liked less. My father now employed both an overseer to run his farm and a foreman at his factory, while he spent his days in the agora and his nights in the banquet-rooms of his friends. Of course he was an old man, deserving his retirement, and I felt sharp pangs of guilt that I had left him so long at his time of life. But when I announced that I was now available to take over supervision of his affairs, he told me I did not have to concern myself with such matters, as everything was in the hands of his slaves.

Wherever I went, it seemed that the citizens of Athens were engaged

only in what they called "public affairs," leaving all their business in the hands of others, either slaves or hired foreigners. Worst, when I went to the harbor, I could find no citizens on the rowing benches of our fleet, only foreigners serving for pay.

"Well, why should I blister my backside pulling an oar, when I can pay a foreigner to do it?" one sailor told me over a jar of wine at a harborside tavern. "Citizens get first chance at a berth, you know, so I sign up for a place and the city pays me three obols a day, then I pay him half to row and keep the other half for myself."

That was not the worst of it. I discovered also that some men were buying slaves and hiring them out to row for the city. One of them was Cimon son of Miltiades, who had gone with me on the embassy to Carthage, and he willingly explained to me how the business worked. "You buy a fit rower for, say, a hundred drachmas. At three obols a day, he earns you that much back in a year. Of course you have to take his rations out of that. The captains make sure you do. Rowing's hard work, and a man can't keep it up forever on a handful of barley a day."

"A hundred drachmas?" Had the price of slaves fallen so low?

"That's all you need, so you can pick up a sound crew and bring in a good income with a reasonable investment."

"You mean you hire out more than one rower in your own place? Is that legal?"

"Well, not exactly, but if you know the captain, things can be arranged. Sometimes you have to give back a little on the rate, if you know what I mean?"

Unfortunately, I knew all too well what it meant—mercenary corruption at the heart of the city's strength. To confirm what Cimon told me, I went to the city's slave market. Surely there hadn't been so many slaves for sale when I'd left Athens! No wonder the price was so low. Where did they all come from?

I told the broker, a foreigner of course, that I was looking for a scribe, someone to copy out my manuscripts for me.

"You're lucky, with all the Heracleans still on the market."

"Sorry, I've been away on a long journey. Was there a war with Heraclea?"

"They tried to get out of paying their tribute. We had to teach them a lesson. The example will teach all of them."

"Well, I'm told I should be able to get a sound slave for less than a hundred drachmas."

He protested, of course, that a trained scribe would cost a great deal more, but this was only the opening of negotiations. I got my scribe for one hundred and ten drachmas.

His name was Timotheus, and he was not a Heracleian but a Samian, enslaved by the Persians, then sold to Rhegion by a Carthaginian trader and taken as part of the spoils when we took Rhegion from Carthage. He served me well for years copying out my *Historia* and other manuscripts until a fellow Samian asked me to let him buy his freedom back, which I allowed for his good service. He's remained in Athens and opened up a copying shop, doing a good business, with five or six men of his own by now. Everyone prospers in Athens.

Once, I know, we liked to tell ourselves that Hellenes would never enslave other Hellenes, that only barbarians would slaughter a city's entire population or sell them wholesale on the slave market as the Persians had done to Miletos. We like to tell ourselves that men in the lands ruled by the Great King live in slavery while we are free. But I have been in the empire of the Great King now and seen the Hellene mercenaries in his army—Argives and Thebans. I could see very little difference between them and us. Athens had grown arrogant, and the slave trade was so lucrative. Why not teach the Heracleans a lesson and make a profit from it, too? That was what we had come to.

Pericles had become the first general on the Council, his father having died soon after I'd left for Carthage.

"Surely you must know about this," I confronted him, because there was nothing in Athens that Pericles did not know. "Citizens selling their places on the rowing bench to foreigners, men hiring out slaves to serve in the fleet, for profit? I doubt there's a single Athenian pulling an oar on an Athenian trireme these days."

"That's hardly true," he said defensively. "All the commanders and the marines are Athenians."

"It may start with the rowers, but it won't end there. You're putting the defense of our city into the hands of foreigners if you allow this to go on. Do you want us to end up depending on mercenaries? Remember Syracuse, the civil war after Gelon died, when the mercenaries almost took over the city, and we had to send soldiers to put the democratic party into power!"

"You can't keep five hundred warships crewed as easily as you seem to think," he argued. "Men have other affairs to concern them. Who would attend the Assembly and the law courts if every citizen was away at sea pulling an oar?"

"Five hundred? So many ships? Heracles—the cost! That's at least . . . two thousand talents a year!"

"At least, yes," he said with a wry grin, which meant my estimate was low.

"Where in the name of all the gods does the money come from?"

"From fees and taxes. Foreigners come here to get rich, why shouldn't they pay for the privilege? And of course tribute."

"The tribute from the cities in the League of Free Hellas, you mean?"

"From the cities we protect with our fleet. They pay the expenses of our rowers and ships that keep them safe. It's only fair."

"Was it fair to Heraclea?"

"The Heracleans were happy enough to have the pirates cleared out of their waters, but they didn't want to pay for it. We had to teach them a lesson. If the cities don't pay, we can't support the fleet, and the pirates will come back."

"Maybe we don't really need so many ships," I suggested. "Maybe the pirates won't all come back. Then the tribute wouldn't have to be so high."

"If we didn't have so many ships, our enemies would be on us like hounds on a wounded hare."

"Then all the more need to have them manned by our own citizens," I

insisted, returning to my original point. The Athenians were getting rich off foreign tribute, but under Pericles they didn't have to lift a hand to earn it, or pay for it with their own sweat and blood, the lives of their fathers and sons.

I felt so strongly about this issue that at the next Assembly I stood up and proposed a law requiring that only Athenian citizens could make contracts to man and supply the war fleet. I speak well, as you know, from my years on the stage, and the Assembly approved my law with overwhelming enthusiasm. I also proposed another law that no citizen could collect fees from the city for more than a single rower in the fleet, but this measure was not so successful. The citizens did not wish to deprive themselves of such a large part of their income.

My new law proved to be a popular one. The citizens quickly bought up all the contracts for the fleet once held by foreigners, then let the actual business back to them for a fee.

"Now you see how these things work," Pericles told me later, when I complained to him. "This is Athens. Here, the people rule."

So I made no more attempts to pass laws. Instead, I published my *Historia*, which has brought me a good, steady income over the years. People are always interested in strange tales from distant lands.

Then I wrote a new tragedy.

My popularity on the stage had not been diminished by my long absence from Athens. On the contrary, whenever I went out to the market or the gymnasium, people would stop me to ask, "Sophocles, when will we get to hear your next drama?"

"Soon," I told them. "At the next Festival."

I called it *The Ransom of Chryseis*, and it takes place during the Trojan War, when the Hellenes have laid siege to Troy. The drama begins with Apollo descending onto the stage in all his glory and wrath:

*Far-shooting Apollo, lord of the silver bow,
I come with plague-filled arrows to the shores of Troy,
Where Argive Agamemnon, destroyer of cities,
Has beached his fleet of hollow ships.*

It was an homage to Aeschylus, a return to the old style of tragedy. But I doubted there was an Athenian alive who would not know whom I meant by Agamemnon, the arrogant lord of ships who sent other men out to do the fighting while he took the best part of the loot for himself, including the daughter of Apollo's priest Chryses.

I turned in the manuscript to the archon in charge of the Festival entries, but the next day he brought it back to me, nervously embarrassed by his errand. "Sophocles, I don't know what to say . . . but you can't enter this in the Festival! We can't produce it. It defames the city! It's sacrilege!"

"It defames Agamemnon, perhaps. But he wasn't an Athenian. There isn't a word about Athens in my drama. How does it defame the city? How does it offend the gods?"

He stammered through another few excuses, but of course I knew the only reason my tragedy had been rejected—Pericles did not want the Athenians to hear it.

So the next time someone in the agora asked me about my next tragedy, I replied, "I entered it for the Festival, but the archons rejected it."

"They won't let me produce it."

"They don't want to let it be performed."

Of course these few remarks created more interest in my tragedy than if I had hired criers to go through the marketplace. In days, there was an uproar in the Assembly, demanding that the archons allow it into the Festival. And in Athens, the people rule.

Pericles was furious, which meant that he went in public with a face like stone and plotted secretly to have his way. The day before the performance, the actor playing the role of Agamemnon disappeared—abducted and put aboard a ship for Syracuse, I later learned. But I was prepared. I had attended the rehearsals, and of course I knew all the verses. In my younger days, before I went to Carthage, I had often performed a role on-stage in my dramas.

So Pericles was forced to attend the performance, to sit in the seat reserved for the city's first general, and to listen as I declaimed the harsh words of Agamemnon:

*A thousand ships at my command gave me the right
To seize the slender-waisted girl, to make her mine.
How many ships does Chryses have, to take her back?
Why should I yield my rightful spoils of war
To any man or god?*

I know the Athenians are capable of feeling shame. It is self-interest, not shame, that generally directs their votes in the Assembly, but still in their hearts they fear the gods and know when they have done wrong.

The messenger who tells them this is not always welcomed, however. I did not win the olive crown. Watching Pericles' face as I delivered my lines, I wondered how he might take his revenge, but I believe he finally decided it was best to make as little of the matter as possible, once the damage was done.

It was months before he would speak to me again, and when he did, his tone was cold. "I hope you've learned to keep to matters that concern you."

"Indeed I have. From now on, I plan to stay away from making laws in the Assembly and keep to writing tragedies."

This was not quite the answer he wanted to hear. "I hope you don't expect to win more prizes, then, if your new tragedies are like the last one."

"Tragedy is meant to honor the gods, not just to please the people and their leaders. I will be satisfied to do the first."

"Perhaps the people will think otherwise," he said with a threatening frown. "They know a city that tolerates blasphemy will lose the favor of the gods."

But I was not to be intimidated. "The Athenians may not ever vote me another prize, but it would be a different thing if someone tried to stop them from hearing me," I warned him.

So it proved. I followed *The Ransom of Chryseis* with *The Mercenaries*, the story of the soldiers sprung up from the dragon's teeth, and how they turned their swords on their creator. The year after that it was *The Women of Heraclea*. Each time, the Athenians crowded into the theater to

hear my words, but each time I made them uncomfortable. *The Women of Heraclea* had the entire audience weeping by the time the last verses were sung. I thought that it was even possibly worthy of Phrynichos.

When it came to *The Fall of Minos*, I had to play the role of Theseus myself, as no other actor dared recite the verses calling down the wrath of Poseidon to destroy the sea-empire of Minos and free his subject cities, including Athens, from the burden of tribute:

Earthshaker! Father—

If my father you are—

Then shatter the rock

Of this city's foundation

And cast it down!

Tear open the earth

To bury it.

And raise the sea

In a great engulfing wave

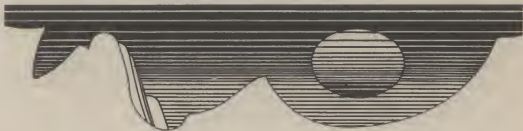
To wash its ruins away!

The echoes of my words fell onto a profound silence as the audience sat motionless in horror to hear such a curse uttered on the stage. Through the eyeholes of my mask I could see Pericles rigid with rage, stone-like as any victim of Medusa as he sat in his official seat—Minos on his throne.

Immediately after the production, he threatened to have me prosecuted for sacrilege and treason, fined ten thousand drachmas, but I pointed out that every line in my drama could be justified by the authentic poetic sources: the god had indeed destroyed the palace of Minos with a great earthquake. In the end he settled for ostracism, which would not give me the opportunity to speak in my defense. I believe he feared I would recite the entire text of my new tragedy in court. I had let it be known that the title was *Pericles the Tyrant*.

Thus it was that I became the first citizen ostracized by the Athenians since Aristeides the Just, a fact I did not fail to point out to Pericles at my departure, adding, "I must matter a great deal to you." I am sure he is looking forward to the end of my ten years of exile, when I will be able to return and produce my tragedy, unless things have changed greatly in Athens, whether for better or for worse.

In the meantime, I have chosen Cuma for my place of exile. The region is a pleasant one, and I find it an excellent source of inspiration, being so near the shrine of the god. As yet, there is no theater here, but I have encouraged the Cumaeans to consider building one and sponsoring tragedies. If they do, I have promised to write one for them, to inaugurate their stage. It is always good to honor the gods. ○



OVERLAY

Jack Skillingstead

Jack Skillingstead's latest story is about an unusual sort of timesharing. He tells us he got the idea for it while "wondering where my ego-consciousness went when my body was asleep. That made me think of the time I went on vacation and asked a friend to housesit. He wound up trashing the place."

Bad memories haunted me. I kept my good ones in a box under the bed. It was a small box.

Sweating in the coffin-sized apartment that Northeast News Stream Services provided, I sat in my underwear and fingered listlessly through the meager selection of loops. I was wasted, but couldn't sleep. A Rider had borrowed my body the previous night. Rubbing the back of my neck, I could feel the hard little button that Thixton's people had implanted under the skin at the base of my skull: the portal.

As with everyone else, my deepest memory impressions occurred before my twelfth birthday, and it was only from that rich memory soil that Dreamloops could be readily fashioned. So I had none of my wife, Cynthia. There was a way of altering near-memory engrams to make them more adaptable to loop technology, and I was working on that. But, for now, I picked out one of my childhood favorites. Long ago, when I was little "Scottie" Kriegel, I'd gone Halloweening for the first time. Lying back, I dropped the loop into the player and closed my eyes.

Run the spooky shadows, wind-sway of birch branches under arc sodium light. My right fist tight around the handle of my plastic pumpkin bucket. Big brother James holding my left paw. Sweat and rubber stink inside the mask. We approach the door, which has six panels and is swaged with cotton cobwebs. James tells me to ring the bell, which I do.

And that's where it goes wrong.

Because there's another door overlaying the one in my memory loop. It's a slate-gray slab with the number 207 stenciled at eye level, and it opens because I've just swiped a key card. It swings in, slightly out of sync with the Halloween door. And then I'm having some kind of schizophrenic mind-split experience. I'm seven years old, trick-or-treating my little heart out, and I'm thirty-eight years old, stalking into a strange co-op. A woman turns from the window. Her body is barely concealed by a gossamer shadow that clings to her skin and halts at mid-thigh. There's a home-rolled cigarette between her fingers, and smoky light ladders up

the half-open blinds to the accompaniment of helicopter chop. Her lips are black, her tightly razored hair gleams like tarnished copper, and Mrs. Henneke from across the street is wearing a pointy witch hat but smiles like my grandmother and says I'm the cutest little thing. The woman with black lipstick says, *Did you kill that boy?* and I show her my hands. A miniature Snickers bar drops into my virgin bucket—

The loop had run to the end of its maximum two-minute duration.

The player clicked off. I listened to my breath.

Franz Thixton threw his head back and slurped an oyster into his florid, jowly face. He replaced the empty shell on the plate, lips glistening with juice, and wiped his fingers fussily on a linen napkin. Even though we were sitting outside, the smell of the oysters flirted with my nausea switch. Or maybe it wasn't the oysters.

"You don't look good, Scott," he said. "You need to take better care of yourself."

I brushed the backs of my fingers against two day's growth of beard stubble. "I'll start hitting the gym," I said. "You want to buddy up?"

He laughed asthmatically. I didn't like the proprietary way he looked at me, but I guess it made sense.

"In all seriousness," he said.

"Look," I said. "What I wanted to talk to you about was boundaries. Our agreed-upon boundaries."

Thixton sopped up oyster juice with a hunk of French bread, then pushed the bread into his mouth with his blunt fingers, as if he were loading something. He chewed methodically, and looked at me like I was a good suit of clothes that needed pressing. It was the same look he'd given me on the day I met him, at a press function after the dedication of the Thixton Terminal, Back Bay station. He had picked me out of the crowd of journalists. Naively, I'd thought I was going to get a private interview. That's how fogged I was in the first months following Cyn's murder.

"What about them?" he said now, referring to boundaries.

"Nothing illegal," I said. "That was the agreement."

"So I recall. And no scars. Did you find a scar?"

"No."

"Then there's no problem."

"Nothing illegal," I said. "I mean it."

He skinned his upper lip back and pried with an ivory toothpick at something green between his teeth.

"Do you have a particular illegality in mind," he said, "or are you simply seeking in your own clumsy way to terminate our relationship?"

"No, no. I don't want—"

"Perhaps you've found yourself the recipient of an unforeseen inheritance."

"No."

"Lottery ticket? A spectacular day at the track?"

I shook my head.

"Too bad," he said. "Luck is a wonderful companion."

"So I've heard."

Thixton picked up his glass of Chablis and drained it off in one greedy draft.

"Then let me set your mind at ease," he said. "As your Rider, I haven't incurred any traffic tickets, nor distributed any bribes, nor robbed any banks. I don't *need* to rob a bank, anyway."

He put his empty glass down and stood, the servos of his dead leg's exo-frames whirring loud enough to draw stares from other tables.

"Go home and shave, for God's sake," he said. "Don't you ever look at yourself?"

"Not as often as you, I'm sure."

He grunted and walked away, whirring and clicking, the exo-frames pinching at his baggy slacks. People stared not only because of *who* he was, but *what* he was.

I looked at my crab salad, then pushed it away.

Did you kill that boy?

My hands were clean.

I returned to my apartment on the ragged edge of the Boston Sprawl, Medford Township. Sleep continued to elude me. Being taken over by a Rider denies you your REMs, flattens you out, and, paradoxically, keeps you vibrating above sleep's sweet threshold for two or three days afterward—then you drop into sleep so lightless and abrupt, it might as well be a coma. Providing a ride can also, in some cases, have the unfortunate consequence of permanently shorting out your sleep centers—which is why Rider arrangements are illegal. That, and the inevitable possibility of body-jacking for various unwholesome purposes. I was willing to risk the consequences for a chance at seeing my wife again, if only in vivid memory-loop recall. Certain very expensive drugs had already begun to modify my near-memory engrams. Perhaps that's why the overlay had occurred. Thixton paid well for the occasional use of my body.

I picked through some notes and hammered out five hundred words of scintillating prose concerning the "kinder/gentler" Homeland checkpoint makeover, filed the story with NENSS, and crashed with a beer and the TV.

And there she was! The girl with the tarnished copper hair, part of a guerrilla theater group perpetrating some disruptive art on the Boston Common, something to do with black body suits, red paint, and wrist-to-wrist paper chains. It was a quickclip on MSNBC, a disposable eyeflash that cut out right after the cops waded in with their movealongs.

I called a friend, a third-banana news director on the network, and asked if he could ID the girl. He could and did, after an hour or so.

Her name was Rhonda Reppo, and her co-op's security was laughable. I paged her room from the lobby.

"Ms. Reppo?"

"Yes. Franz—?"

"My name's Scott Kriegel."

A pause. "And?"

"And I'd like to talk to you."

"Do I know you, Mr. Kriegel?"

"It's about Franz Thixton."

Another pause, this one longer. Then: "What about him?"

"It would be easier if I came up."

"Easier for whom?"

"Look, I'm not interested in any arrangement you might have with Thixton. It isn't about you."

"I don't know what you think you mean by 'arrangement,' but I guess you can come up. Bear in mind that I don't have all day."

Number 217 on a gray slab door. It opened, and Rhonda Reppo's face morphed through a variety of reactions, then settled on stoic neutrality. She wasn't made up as she'd been in the overlay. Her pale lips and unlined eyes verged on wholesome vulnerability. Right. She turned and walked into the room. No clinging gossamer today; jeans and a green silk blouse. I followed her in and closed the door behind me.

Her place wasn't much bigger than mine, though her taste was a quantum leap beyond. And, of course, the indulgence of such taste isn't usually cheap.

"Drink?" she said.

"I'll have what you're having."

"I'm having a joint, and I don't share."

"Beer, then."

"Be serious."

"Scotch?"

She sat on the white sofa and opened a red lacquered box that held her drug paraphernalia. I stood there like any inanimate object you care to name. She grinned up at me. "It's your bottle and you know where it is," she said.

"I don't—"

But I did. I'm not a scotch drinker, and yet, standing in the middle of her apartment, the word had appeared in my mind naturally and I even experienced a desire for it. Now I breathed out, allowed the tension to relax from my body, and I found myself walking into the tiny kitchen and opening the cabinet over the stove top. Horse finding his way home. Somatic memory reflex. I reached down the bottle of Glenfiddich and poured a couple of amber-gold ounces into a glass.

She was already smoking when I re-entered the room, the air pungent with a melancholy haze of dope. I sat opposite her in a spindly appearing chair, more skeletal artwork than functional furniture.

"You found it," she said.

I nodded, sipped, put the glass down. "It still tastes like mercurochrome."

"Franz loves it."

"I'm sure he does."

She dragged primly on her joint and sat back, looking at me in a peculiar way that made me want to squirm. Instead of squirming, I told her why I was there. I explained the memory overlay and what I'd heard her say. She went on looking at me after I'd finished. The moment became uncomfortably elastic.

"Look," I said. "I want to know what you meant by asking Thixton whether he'd killed someone."

"I didn't mean anything by it."

"I don't believe you. And I wish you wouldn't stare at me like that."

She laughed. "But it's *fascinating*."

She made me so nervous that I found myself reaching for the scotch again, despite the medicinal—to my taste—flavor. It burned down my throat and almost immediately fumed up into my sleep-deprived brain.

"This is quite a study in opposites," Rhonda said. "When it's *Franz*, he—"

"He what?"

She began preparing another joint. "He likes to be in charge."

"In what way?"

She snorted.

"Tell me."

"In a rough way, what do you think?"

"I think the price must be right."

She lit the new joint with a Zippo and drew hard on it, holding the smoke in her lungs before finally breathing out. She slumped back on the cushions and regarded me with moist, drooping eyes.

"The price is right," she said. "For both of us."

I drank some more mercurochrome.

"I know all about you," she said. "Franz laughs. He says you're pathetic, selling yourself for the price of a few memories."

I grunted.

"I can get under your skin so easy," she said. "Franz's skin is like rhino hide."

"What about the murder?" I said.

"You're persistent."

"I'm a reporter. It comes with the job."

"You looking for a story, then?"

I shook my head. "I just want to know."

She pulled her legs up on the sofa, feline sinuosity, and I recalled the gossamer thing and the black lipstick.

"What if he *did* kill someone while he was riding you, what would you do about it?"

"I don't know."

"But it would make a difference?"

"Yes."

"Why?"

"It just would."

She reached out and dropped the tiny glowing scrap of the joint in the ashtray on the table, stretched, and stood up.

"You have a car?"

"Yes."

"Let's go for a drive," she said.

She pointed and I turned. We rolled past grimy brick buildings. I knew the area. My skin felt prickly with sweat and nerves. A Boston police cruiser idled at the curb, flashers alternating, a man in the caged back-

seat staring out the window like he was watching TV while the cop filled in paperwork on a clipboard. A little farther on, Rhonda said stop. We were in front of an empty store and a green fire hydrant. Across the street, there was a nightclub with a red door.

"Franz drove me down here a few weeks ago," Rhonda said. "There was a boy standing on the sidewalk right over there. Only he wasn't just *standing*; he was advertising. Young, fifteen. Sixteen—*maybe*. Franz asked me if I thought the kid was good-looking."

Something ugly uncoiled in my stomach.

"Yeah?" I said.

"I told him I wouldn't touch the kid with a ten-foot pole, even if I was wearing a full bio-hazard suit. So Franz said something like, I don't blame you. He's fucking scum and I'm going to kill him."

"And that's who you were asking about in my memory loop overlay?"

"Yes."

"Did Franz kill him?"

"I'm hungry," Rhonda said. "Let's get out of this neighborhood."

We hit a brewpub near Fenway Park, ordered pints of Revolution Ale and club sandwiches.

"What do you think our patron is having for lunch?" I said.

She almost choked on her sandwich. "Our *patron*? You're too funny. Do me a favor?"

"What kind of favor?"

"Kiss me."

"Why?"

"I want to compare. You know, is it what's inside that counts?"

"Let's skip it."

"Chicken."

I bit into my sandwich.

"How did your wife die?"

I chewed, swallowed, and said, "Let's skip that, too."

"Was she a reporter like you?"

I sighed, put down my sandwich. "Yes, she was a reporter. She was murdered. Not too far from the street corner you took me to."

"Was she a good reporter?"

"She was good enough, which, in our line, pegs you to second-rate venues, second-rate pay scales, and second-rate lives. She had ambition, though. She was chasing some mystery story on her own time when she got killed."

"What did the police say?"

"Random act. No one has been arrested, but it hasn't been that long. Can we talk about something else now?"

"What was the mystery story?"

"Jesus. It was a *mystery*. Even to me. She kept it to herself. She shouldn't have bothered. I'm *not* ambitious."

I reached for my beer, but didn't want it and didn't pick it up. Fatigue overtook me like a gray wave. All of a sudden, I could barely keep my eyes open, my post-Rider buzz failing with characteristic abruptness.

"I have to sleep," I said.

"You look like somebody just hit you in the head with a hammer."

"Roughly correct."

I paid the bill. In the parking lot, I fumbled the keys out of my pocket, dropped them on the ground. I leaned over, but it was Rhonda's hand that picked them up, her nails finely shaped and painted the faintest mauve.

In my dreams, Cynthia was real. Not just a memory, or a desire, or a longing, or a regret. Dreams resemble loops, or the other way around. There is no distance. Imagine being able to turn on your favorite dream at will. Imagine the risen dead.

I woke in my apartment, on my bed, in a straggle of blue TV light filtered through layered strata of dope. It was hot. Rhonda Reppo sat with her legs crossed and locked in a Zen lotus. Her legs were bare, and she was wearing one of my sleeveless T's.

"What—" I started, but my throat was too dry to make much more than a croak. She turned her head, and I swallowed a couple of times and tried again: "What are you doing here?"

"I got your address out of your wallet and drove you home. I didn't want to leave you sleeping in your car, so I walked you up here. Every time we stopped, like at the lobby door or the elevator, you started sliding. So I'm not going to carry you, right? I tried to keep you moving. Got your apartment open, but then what? Let you hit the floor and leave you? Then I'm thinking, I'm not cabbing it all the way back to my co-op. So you're my ride—but also, I was thinking we could kill Franz together, if you're game."

"You better quit smoking that shit." I rubbed my face, stood up like somebody rising out of a sucking tub of mud, and shambled over to the refrigerator. It was mostly empty, except for a few bottles of beer and one of water. It was water I needed. I chugged on the half-empty bottle, letting the cool air from the open fridge dry my sweat.

Rhonda touched my bare shoulder. I'd known she was there, and didn't flinch. She trailed her nails down my back. It felt good, but I said, "Don't," and she stopped. I capped the bottle, replaced it on the shelf, swung the door shut, and turned. She had stopped touching me but she hadn't retreated an inch. Her breasts filled out my T-shirt, dark nipples visible through white ribbed cotton.

"You're a nice guy," she said.

"I have my moments."

"Loyal."

"To a fault." I moved past her, picked up my keys. "I'll drive you home now."

"You didn't say whether or not you were game. There's this guy in my troupe? He kind of plays at the street-theater thing. In real life, he's some kind of techie. I asked him once if he could screw up a Rider while he was riding, and this guy, Tony, he said sure. He said he could make a gizmo that would scramble the Rider like breakfast eggs, but you'd have to be right on the portal. And I could be on it, that's not a problem."

"Nobody's killing Thixton. Nobody's killing anybody."

"You're wrong," she said. She still hadn't moved. The TV light pulsed on her legs.

I clutched my car keys, stared at her.

"You're not the only one," she said. "Franz has many rides. He can buy what he wants, and he buys lives."

My head hurt. How long had I slept? It was dark, the time stamp in the corner of the TV said two AM, but what day was it?

"With us," Rhonda said, "it's like a seedy romance, almost. He gets off on the artsy-girl bullshit. In some of his other lives, he gets darker. You're a nice guy, but you need to know how much your memories cost."

"Get dressed," I said.

"Franz *talks* to me," she said. "He shows me things, like that boy. He knows I'm scared, and he likes it."

"Get dressed, Rhonda."

She did, and neither of us spoke another word.

My hands were clean. But somebody *else's* were dirty. I was able to ignore this fact for a while, though I knew it would eventually claim me. Meanwhile, my drug protocol continued apace, and I was well on the road to permanently altering my memory centers—I was on the road to having Cynthia back.

Then, one night, drunk, trying to write a feature about the role of block captains in co-op districts, I became suddenly enraged and threw my beer bottle at the wall hard enough to wake up the unknown occupant of the adjoining apartment. He thumped the wall a couple of times, but it was nothing compared to the thumping going on inside my head. And for the millionth time since Rhonda told me about Thixton's other lives, I wondered what story Cyn had been chasing, and who had decided to terminate her investigation.

I closed out my newsfile and buzzed Rhonda Reppo's terminal. It was about three o'clock in the morning. After a moment, she answered, a dark, rainy image-insert opening in the corner of the screen.

"Don't you ever sleep?" I said.

"Don't you?"

"Not much."

A tiny coal brightened and dimmed in front of her face. "So," she said.

"You can't get at a man like Thixton. He has money and he has political connections, police connections. Even with proof, you couldn't expose him. Say you have names, particulars. The cops would collar *me* for participating in an illegal Rider arrangement and never bother with the rest of it. Or I write the story, fly it by my editor—whom I've never met in person, by the way. He wouldn't run it. I'd be lucky if he didn't fire me. What's more, I'd find myself audited, some government agency raping every data point out of my soul until they found something good to nail me with. I'm a threat to security. Isn't *everybody*?"

"I never said anything about getting Franz that way," Rhonda said. That tiny glow-in-the-dark image, waiting.

"This gizmo," I said. "What will it really *do* to him?"

"In a perfect world, he'll become a drooling vegetable."

"The world isn't perfect."

"Usually not," she said.

"And what do you need *me* for? Why haven't you just *done* it when he's over there with my body?"

The ember of dope glowed bright, subsided. After a long while, she said, "Maybe there's a chance he won't be the *only* vegetable to come out of the deal."

"And I'm a nice guy."

"Yeah."

"Okay," I said. "I'm in."

My night came around. I wanted to call it off, but didn't. I was nervous, and when I lay down, it was with little expectation of sleep. The next thing I knew, I was in a strange bedroom, tumbling backward, a bright ceiling light stabbing into my eyes, hearing somebody gasping for air. I fell through a long gap in cognitive reality before I hit the floor, cracking the back of my head a solid blow. But it was the button-locus of pain at the base of my skull that *really* hurt. I writhed on my back, eyes squeezed shut. A cool hand touched my cheek. Rhonda Reppo's voice, soothing: *No, it's all right, it's all right . . .*

Bad memories haunted me, and not all of them were my own. Now, when I slept, a nasty residue of Franz Thixton fumed up, and ghosts of his perverted deeds and desires spooked through the night marshes of my dreams. More than once, I'd seen Cynthia on those marshes, and it was no longer memory-enhancers I craved, but a memory-suppressant.

A month after we'd scrambled Thixton like "breakfast eggs," in a lost hour past midnight, I turned to my terminal, its flat blue light the only illumination in my apartment. I buzzed Rhonda Reppo, and presently a box opened in the corner of the screen.

"Okay," I said. "Let's find out."

"Find out what?" Rhonda said, after a moment.

"Whether what's inside is what counts."

Light streaked when she pulled the joint away from her mouth. She said, "I guess I'm ready for a ride, if you are." ○

PRAY FOR THE TINY MONSTERS

I do not think that we can wipe it clean. Well, or wipe, so fouled there would be no life.

I don't think the slate is erasable. Well, or the world.

There will be life. Apes to take the place of us, rats to take the place of apes, and so—I think; rats in the trees, swinging from branch to branch, chattering, nesting—waiting their turn as they have done all along.

PRAY FOR THE TINY MONSTERS (cont.)

Or—ratless—back to the mudskipper, moving more surely than
on suddenly less treacherous shore—fins to fingers,
water to air and always a thing of three elements,
shy of fire -

or the angler fish. Yes—the angler, in wait, and dangling
some bit of itself as bait for the other hungry. Who so
better in place of us? Who so better to prey, godless?

Or if the seas are sullen, unbearing, wombless,
things waiting small will replace these all and every one.

Look! The tiny monsters become large, grand monsters,
look—notochord, look—jaw, look—spine, look—bone, look—

large arching monsters who will find the stony trace
of races past, the Atlantis we will have left behind.

What will they think of us, what will they want of us,
answered?

And what will this new life do with the dwindled world
we leave them? I SHALL BE OIL in a frozen field,
waiting to be burnt back into the air, anointing them
and of them, inheritors of my earth.

Oh, let us pray, let us pray for them—

let us pray for the tiny monsters.

—W. Gregory Stewart



Phillip C. Jennings's fond desire is to hike the Glagolitic Alley to the walled town of Hum in Istria, visiting in turn the Pillar of the Chakavian Parliament, the Table of Cyril and Methodius, the Seat of Climent of Ohrid, the Pass of the Croatian Lucidar, the Belvedere of Gregory of Nin, the Wall of Croatian Protestants and Heretics, the Resting Place of Zakan Juri, and terminating in the Gate of Hum itself. Any land that has such things could easily have subterranean apertures to other planets—in fact it seems highly probable that while there, he'll also find his way . . .

BACK TO MOAB

Phillip C. Jennings

My midlife adventure began at an over-air-conditioned Las Vegas conference. Junkets like this were the bane of my career. By day three I grabbed any excuse not to hear Mr. Gupta drone on about international insurance law. When my cellphone buzzed I fled to the hallway and spent a quarter-hour at liberty, hearing about my husband's latest job prospect. Then a hotel crew came tidying after our lunch caterers. Not having the brass to brazen out their glances, I slunk back into the meeting.

Most of us had laptops open, though we'd long ceased taking notes. Squeezing by, I noticed the background "wallpaper" on Samantha Villiers' machine. She gave me a wink. The conference died its final death an hour later, and I got to Sam before she closed up. "What's that?"

"Hi, Janet. We had a slow June, too much spare time," she said. "I've been researching my vacation on the Internet." She tapped the screen with a glossy nail. "It's the library of a monastery somewhere in Istria. I knew the globe would snag you. It's your hobby. I told my people in Switzerland about your write-up in *Weekender*, and someone emailed this to me."

I nodded. Everyone had checked out so it was just a matter of schlepping luggage to the airport shuttle. Sam and I rode together. She told me more than I wanted to know about her holiday destination; art colonies, nudists, native wines, truffles, castles, walled cities, gorges, and under-

ground rivers. "Now that the days of hideous Balkan politics are over, Istria is opening up."

"Can you forward that picture to me?" I asked. The pixelation had been stretched so details were impossible to make out, but clearly it was old, a globe with a cherrywood frame, the blue of ocean faded to green and the colors of land gone yellow. Sam showed it to me again at the airport, a vast northern blotch and a vast southern blotch with an equatorial ocean between, which could only mean that this globe was made in the eighteenth century or earlier, before the voyages of Captain Cook.

Well, no. It might mean a lot of things, but *possibly* the object on Sam's screen was a collector's item. Three centuries ago, people believed in a huge southern continent, balancing the mass of Asia to the north. Cartographers obliged by showing land wherever they could. Could this globe possibly be an uncatalogued Coronelli? I had the collector's disease bad. No way was I going to let this rest.

That night I unwound from my trip. Sam sent her email the next day, including Internet addresses about Istria, a place with interior attractions which tourists ignored, preferring the coast. Sam's Franciscan monastery was one such retreat, in the neglected city of Pazin, folded in ranges of looming karst.

I sought more information. When the week was done I telephoned my co-hobbyist. Lady Paysbury was Dean of Gynecology at London Royal Hospital.

Her life was booked. In lieu of leisure, she had wealth. We'd done business before, despite the ocean between us. It was simple: she funded, I fetched and did the write-ups, adding to my repute among the world's historical cartographers.

Someday I'd quit the insurance biz. Meanwhile I planned my forays so they didn't conflict with my career. Nor was I bereft of mate and daughters, who at times made me travel alone, but mostly were eager to come and impose their own priorities.

I let slip the information about the nudists. The Olson family went "eeewww." I talked about karst and gorges and caves. No enthusiasm. They knew naught of truffles and found the idea disgusting. "If we're going to Italy, we should go to Tuscany," they said.

"Istria isn't in Italy. It's in Croatia."

"Croatia!" This failed to cheer.

"But Dante visited the place and that's where he located the entrance to hell," I said.

Ken, Melody and Annette were not swayed. I spoke again. "Tuscany gets the press nowadays. Ten years from now it'll be Istria. You'll be ahead of the curve."

No dice. Melody's summer theater schedule got in the way. In the end, my trip would be solo. The abbot of the monastery would prefer it thus. I wrote and telephoned and emailed, but the rules of Croatian monasticism confounded me. Having no choice, I decided the thing to do was just show up. Monasteries had to take you in, didn't they?

I flew to Trieste on a bargain flight at the rag end of tourist season. I

fetches my luggage and got tapped on the shoulder. Drago Sabotnik smiled his wolfish grin. "Jan! Welcome to Trieste!"

If you're a math major in college and have a name like *Janet Olson*, you go into insurance.

If you're *Drago Sabotnik*, you become a wild genius. "Drago!" I said, surprised as hell. "So this is where you ended up?"

"Near enough. Trieste is close to a number of borders. That comes in useful," Drago said with a wink.

Drago had worked on stochastic decision-modeling software in graduate school. He used it to track the stock market. When he began peddling to big investors, he told them to tweak the default variables. Most didn't. Drago placed his own orders and waited until "p" became 59 percent. The market went into a mad zoom as two dozen brokerage houses obeyed their computer-generated buy orders. Drago became rich overnight, rich enough for a lifetime.

He disappeared before the article came out in the *Wall Street Journal*; "When Mathematicians Go Bad." Perhaps Blue Tuesday wasn't his fault, but his role was questionable. The use of lockstep software for stock trading was outlawed. The lesson had been learned.

I remembered Drago as a complex classmate who wrestled with his soul before he did anything, so the spontaneity of riding with me from the airport to my hotel struck me as odd. Maybe his old college crush on me was still a factor. He was big on Trieste; harbor, funicular trolley, ancient synagogue. "Enough with the tour," I said while still in the cab. "Tell me about yourself."

"There isn't much," Drago said. "I have money now. I don't call it *my* money. I regard it as a trust. I'm a praying man, Jan. I know what they think in America: I'm a bad guy, but if I went back and defended myself it would waste everyone's time and I might end up in prison. Meanwhile there are important things to do. But let me turn the tables. Tell me, what brings you to Trieste?"

"I collect old globes. Well, not me exactly. I'm the front person, but I'm developing a reputation. Globes are my specialty in the field of historical cartography."

"*Historical cartography*," Drago repeated. "You know, on the Internet if you combine 'Istria' and 'maps' you get an enormous number of hits. We're the *homeland* of historical cartography. We're *sophisticates*. You won't find an unappreciated treasure in this part of the world."

"I see. A praying man? Perhaps a Franciscan monk? I think it was no accident you met me at the airport," I said.

"I'd spare you a trip," Drago said. "The globe you want isn't for sale."

"The monastery could have sent a letter," I complained.

"And should have. But by the time your translated email—oh, bother. Why defend them? The Croatian Nationalists have won control of the government and the Catholic church, particularly the Franciscan order, is closely involved. Your communications got set aside in the political hula-baloo. So you spent your money and I wish it weren't wasted. There's much else good in these parts." Drago sighed. "If I could help—but the globe, no. Not ever that."

"What about that globe? Why does it look like no place—oh, here we are. What a hotel! Art deco and then some."

We paid the cabbie, and made our wind-whipped way into the glorious interior. I checked in. We squeezed into a tiny elevator and lurched to the fourth floor. I entered a high-ceiling suite and set my suitcase by the dresser. Drago took the phone and spoke to room service. "Some good wine to celebrate our meeting again," he said to me.

"I have to shower off a day of airports and cramped planes," I said. "Then I want an accounting. Tell me the story of that globe. Lady Paysbury will expect no less."

Drago nodded. I came back from my shower in a hotel bathrobe. A knock on the door signaled the wine. Drago poured. We toasted each other. "Well then, about the globe," Drago began. "What are your impressions from the picture? Which should never have been made public, by the way."

"A badly whanged-out East Indies," I said. "Oversized, but small compared to the humongous Australia. Even Asia is oversized, except India's gone missing. That's the only sense I make of it."

"Dear old Jan, what's your impression of the Austro-Hungarian empire? An underachiever in world affairs, don't you agree?"

"I'm told pensioners in Italy are still alive who collect from the imperial days."

"From tiny Austria, doing the noble thing." Drago drank. "Foolish, perhaps. There is no empire anymore. Nor do I imagine it will be wanted again. On this world, gone. On another world, the grand ideal. And all connections, very very secret."

"Another world? How am I to take that? You've gone off the weird end," I said.

"We do that a lot here," Drago agreed. "We believe in Crusader orders and heirs to Byzantium and all that crap. People kill each other because of what happened in 1452." He paused and took another drink. "It's not a very good other world. At this juncture the Austro-Hungarian Empire can't put a lot of money into the place. Sad, really."

"Sad bullshit."

"They used to come the other way. We stopped that centuries ago." Drago sipped again. "Janet Olson, I noticed this about you back in college. Everyone assumed you were on their side. Winos evicted from K-Marts came bitching about security guards as if you'd make everything right. You reek of humanity. And now I want to tell you more than I should about all this. You'd make a great confessor."

"It's good wine," I said, holding my glass to the light. "No, but if it were another world, how'd it get mapped the whole way around by underachieving Austrians, or Franciscan monks?"

"Or yet less likely, by the Dur Ossur. They're nocturnal and breathe fog. That's their handicap on a world of huge deserts. Our handicap is, we don't reproduce. Lack of women."

"How do you get there? Spaceships?" I asked, mastering a skeptical look.

"A miracle, with chance of death," Drago said. "It's like something from

a torture chamber. It's not of human manufacture, and it can misfire. We send only devout monks who accept the risk. If we did otherwise, a single female, the long peace would be over. If you knew about the Dur Ossur, you'd understand."

"Neener-neener *Twilight Zone* stuff! I'd still like to see the globe," I said. "It's not going to happen."

"Why this elaborate lie?" I complained in a louder voice. "I understand when people say no deal. You don't have to cook up stories of fog monsters from another planet."

Drago spoke after a long silence. "You'll have to swear to secrecy. The day you show up in Pazin—"

"Tomorrow," I said. I knew he'd relent. In the old days, the power I held over Drago had frightened me. Maybe it scared him too. Once a mad romantic, now he'd gone far in the opposite direction.

"Tomorrow I'll prove I'm no liar, if you make a promise beyond any compromise. Our captured iron box isn't of human manufacture. I'll show you that, too. But only if you keep your mouth shut."

I made an easy promise, easy because I wasn't having a bit of it. Drago and I drank a last glass of wine and then I got him out, on the excuse that I needed to sleep off my travel fatigue. I went to bed and woke hours later to gray skies and rush-hour traffic. Morning? Evening? I called down to the desk to find out. That's when I noticed my cell phone was blinking.

It could only be Drago, but it wasn't. In her message Samantha left a local number.

How had she found me? Was it just by chance that her vacation overlapped my visit? I was in a paranoid part of the world, and more was going on than could be explained by coincidence.

I needed to clear my head. I put on my jogging togs and went outside to run along the esplanade and breathe some Adriatic air. Afterward I sat down to a fresco coffee and returned Samantha's call. She answered: "Where are you? Still in Trieste? I'll be right over."

I barely had time to buy the *International Herald Tribune* and get my second cup before Sam pulled up in her red Spider convertible. The sun burned through the clouds, and all was happy good cheer. "I'm so pleased to have someone I can rattle off at in English," Sam said. "What's your schedule today?"

"Rent a car and head down to Pazin, to the monastery," I said.

Sam nodded. "I've got a car. Pazin is on my list, if you want to share the ride."

"I might spend more time at the monastery than you'd like," I warned.

Sam shrugged. "There's the castle and the gorge, both close and touritized. How can you turn this down? Everybody knows what a cheap traveler you are!"

I laughed and nodded. I could do nothing else if I hoped to stay friends with this woman. After a short return to the hotel, Sam and I were on our way. Borders came quickly. Leaving Italy, we drove through narrow Slovenia and reached Croatian Istria. Most of the traffic veered for the coast, but Sam and I turned inland, driving past hilltop castles and tiny walled towns. Any historical cartographer will confess his true dream is to visit

the lands of centuries ago. Here I was, only the roads were paved and Istria had gas stations.

Samantha clicked on the radio. A newsvoice spoke. "There's some accident involving a yacht in the Limsfjord," Sam translated.

"You know Croatian?"

"Italian," she said with a laugh. "The radio guy uses both languages but just one accent. What about you? What languages do you know?"

"German," I said.

"There are lots of German tourists. German could be useful," Sam said.

Although Mediterranean and entirely non-Norwegian, Istria's Limski kanal had been dubbed the "Limsfjord" because fjords were a tourist draw. Istria had everything a tourist could want. It was wonderful that way. It even had a mysterious gateway to another planet, if Drago Sabotnik was to be believed.

We reached Pazin in time for lunch. The city was squeezed by the folded heights and depths around it. Schoolkids played soccer in the monastery environs. After we ate, Sam took her way toward the famous gorge that had inspired Dante. I gave her a smile and a wave, found the monastery door unlocked, and went inside to repeat the name of Drago Sabotnik until I met someone willing to help me.

Drago was not the glad fellow I'd met yesterday. He nodded and spoke in a whisper. "This way." We climbed steps to the library, and more steps to a locked door. He took out a key and wrestled it open. "There it is."

Drago's furtiveness made me hurry. I bent over a world of vast northern and southern deserts, salt lakes, and ruins, all labeled in uncial Latin. The place-names grew thick near the equatorial ocean, especially in the area I'd likened to the East Indies. "These are the five kingdoms of the Dur Ossur," Drago whispered. "That's where we're concentrated. We have schools and a hospital. We run them as a Christian duty." Drago paused and spoke again. "Not one in all history has converted to Christianity."

"They have their own religion?" I asked.

"Their *five ponds* are sex, politics, and religion rolled up into something no human understands."

"Have you been there?" I asked.

"I got back ten days ago."

"What about these ruins in the deserts?" I asked.

"The Dur Ossur are not native to this planet," Drago said. "They were brought as curiosities. They survived when the true natives destroyed themselves. They resisted the toxins and diseases. That's it in a nutshell. When the Dur Ossur tried to invade Earth centuries ago, they borrowed a technology no one understands. Probably they were trying to find their lost homeworld. Thanks to the valor of the Hapsburgs, they were defeated. Thanks to the humanity of the Hapsburgs, they were left to the interests of our order."

I spoke while continuing to study the globe: "There are science fiction fans in Pazin. Jules Verne used this city as an inspiration. But you've actually seen your other world, so this isn't a fraud created by fan enthusi-

asts. Unless it's a ploy to bring in tourists. Speaking of bullshit, there's a *fjord* in Istria, a thousand miles from Norway."

"I'll take you to one other place," Drago said. "After that, I've no particular interest whether you believe my story. In any event, I have your promise."

"You *do* care," I said. "You care, and that puzzles me."

"I'll find you a monk's robe. When we talk, talk German," Drago said. "Better yet, let me do the talking."

Drago dressed me in a robe from his cell, and we descended to a basement storeroom. We crossed to an antique elevator. He spoke as gears turned and cables hummed. "Tractor parts. Hospital supplies. Hams. Our local wine. Everything moves through the bottleneck of this one box. We've learned how to put people through without risk of death, but it's not pleasant. It involves paralysis. Three minutes not being able to breathe. Oh, and if you're discovered, we have a special policy. It's worked for centuries, and you'll find out how *real* Moab is."

"Moab?"

"Our name for the place," Drago said.

Our elevator rattled down into a cavern, no surprise. Istria is riddled with caves. The area was half-lit-half-shadow and had one obvious walkway. I heard rushing water not far away. "In times of extra-heavy rainfall we evacuate," Drago said. "It happens about twice a decade."

His voice dropped as we turned a final corner. "*Dort. Eisen. Das innere Material hat ein Atomgewicht, das unmöglich hoch ist.*" Such was Drago's reverence I almost expected him to make the sign of the cross. And damned if he didn't. I followed suit. We saw workers. They loaded the aforementioned hams into the coffin-box. The parcels sank through what might have been liquid metal.

Sank. As if *heavier* than that metal, which Drago had just told me had an atomic weight that was off the charts.

Nodding to the workers, we moved away. "That's it. You've seen all you're going to see," Drago whispered. "Let's get out of here."

We were too tense riding the elevator for me to think like a skeptic. I was a burden to Drago. He was happy to get rid of me. I only started speculating after I made it out the monastery door. I ambled to the car park, wondering if that coffin-stuff was treated water; water that shone silver and did not splash. But the idea of a pointless fraud no longer appealed to me.

Samantha came walking from a different direction. We met at her convertible. "Did you see the globe?" she asked after we got in.

"Yes, but it's not for sale," I said.

She drove off. "Really? I'd have thought *any* monastery could use a few million dollars."

"Huh! Lady Paysbury's budget doesn't go that high."

"But some people *have* offered that much," Sam said. "And they've been rebuffed. What's the mystery? These people could use the money."

"Who do *you* represent?" I asked.

"People who are interested," Sam said. "Other than that, I can keep a secret."

I watched Sam drive, consulting a piece of paper for directions. Then I spoke again. "Are you taking me back to my hotel in Trieste, or is something sinister afoot?"

"The Franciscans of Croatia are not pure," Sam said. "They have a political profile. People tell tales. According to those tales we're dealing with a failed regime and a failed religion."

"You know what?" I asked. "I'm not good with banter and hints. I want to know that I'm heading home to America tomorrow in one piece."

"Are you scared?" Sam asked. "Is this worth being scared about? See ahead? Farms hereabouts have little trattorias where they serve home-made hams and cheeses and wines. Let's go in and talk. My people are there already and they're entirely civilized. All you have to do is tell them what happened today."

Sam turned onto a side road and people came out from the nearby house. She pulled close and stopped. I considered my dignity, got out of the convertible, and began to run. Several men gave chase. I heard the zing-pop of a bullet, and dropped for cover. Three people tackled me and dragged me to my feet.

They marched me to the farmhouse, which had a rear patio with tables. I saw more henchmen, and gave up struggling. Their boss sat on a chair that had been draped for the occasion. On the table at his side was a scale model of the monastery, open along its length like a giant dollhouse. "Please sit," the man said. He shifted his attention. "Samantha, thank you. We'll take care of things now. Take the car and return to Trieste."

"If it's all the same, I'll stay and make sure Jan's treated okay," Sam said.

"Janet Olson is probably not inclined to forgive either you or us," the man said. He looked at me. "For the present, my name is Heider Hummel. My supporters are interested in having you point out locations inside the monastery. This model may help. Eventful hours lie ahead for all of us. We insist that you cooperate. That's why you should listen to this cellphone."

One of Heider Hummel's minions put a phone to my ear, the same bruised ear that had hit the ground hard a minute ago. "M-M-Mommy?" came my distant daughter's voice. "There's some bad guys here. They have us tied up."

"Melody?" I asked. "MELODY!" My legs turned to rubber. At last I complied with Heider's invitation to sit. I couldn't have stood anyhow.

The minion pulled the cellphone away. "Any promises you made to Drago Sabotnik are not worth keeping. We don't want to hurt anyone, but you will show us everything we want to know. Will you cooperate?"

I nodded. Promises meant nothing now. Men brought the monastery model, table and all, close to where I sat. I pointed out the upper library room. "That's where the globe is," I said. My hand was steady. How odd—it should have trembled. As if my arm weighed a hundred pounds, I traced the route to Drago's room and then down. "Here's a basement room your model doesn't show. Across the room is an elevator. It goes down. There's only one stop, and one path after that."

Heider looked at me longer than was comfortable. "I believe you," he

said. He took the cell phone and spoke in a rapid dialect. Then he stood. "My men are leaving. Your family is safe. They'll soon work free of their bonds. You've done wisely. Now let's see what's worth all this agony."

I heard air brakes from the other side of the farmhouse. Heider led the way, breaking pace to offer Sam an escorting arm. "There's too much at risk for you to drive off. It's better if you come with us. Please."

His was a very emphatic "please." Sam took her handbag and came. Through the front door we saw a tourist bus waiting for us; Heider and gang and prisoners.

We packed in. Heider spoke through a microphone as the bus began to move. He used two languages before he got to English. "This will be an awkward invasion. Each of us will have to work off a bout of paralysis, and if the Franciscans on the other side are martialled, alarmed, and ready, we have no hope whatsoever. But we have surprise in our favor. The monks won't know us as invaders until it's too late."

"You're not sending *us* through?" I said from my rear seat.

"You and Sam? If you have anything to fear from the trip to Moab, tell us now."

"There's never been a human woman on Moab," I said. "I haven't been told a lot about the natives, but it has something to do with how they'll react."

"The natives are extinct," Heider said. "You're referring to the Dur Ossur. We have our own plans for the repugnant Dur Ossur. Their capacity for scheming deprives them of the honor we once thought they had."

"Who the hell are 'we'?" I asked.

"Some of us want a new life in exile," Heider said. "The number of prosecutable war criminals in the former Yugoslavia is quite high. The idea of another world sounds good to many in our service. But not a world without women, no indeed! As for me, in the grand old Hapsburg days I'd have counted for something, and I've read the private family books. I'm an explorer, Janet Olson. I do not leave Earth because of guilt. Simply put, there are things to be known that a gang of Franciscan monks has failed to bring to human scrutiny."

We were back in the outskirts of Pazin. The bus passed the monastery, made a turn, and doubled back so the body of the vehicle blocked the gate. The door opened and we all moved out, urged by men flourishing weapons. The rush through the monastery was swift. We panicked three monks and a schoolboy, swept aside and behind. We went down the elevator in shifts and hurried to the iron coffin. Two more monks cowered in submission. One of our men got an injection in his bared shoulder and was dropped into the coffin to sink and vanish. After a second man it was my turn.

I was paralyzed within seconds of my injection, eyes still open. I got hoisted and dumped. My view dimmed to an all-pervading dark. Something took and squeezed. I was sunk by then. My squeezing dance partner whirled me around, and then I—with unworkable paralyzed muscles—whirled it around, still a frozen corpse. It whirled me again and I felt a coldness not of Earth or anything in my former existence. We took turns, whirl and be whirled. I waltzed in a space between planets, per-

haps between universes. Horror of not breathing. Horror of Nowhere. Repeat and turn again. Then came a sudden explosion of sun and gold and hams and tractor parts, and I was in a warehouse, sobbing out gasps as my neurotoxin wore off.

And now I saw a face that was nothing human. For an addled moment I associated that face with my whirl-demon, but obviously it belonged to a creature of mere mortal flesh.

The Dur Ossur sat behind a heap of goods as if possessing them all, not yet recognizing an invasion. I took to my feet and wheezed, and a new body came through. The monk who lifted him out spoke a question but did not expect an immediate answer.

The two men preceding me were now in command of themselves. When Samantha came through they shoved the horrified monk aside and lifted her out. The alien face showed no reaction. How would the Dur Ossur recognize human females from males? Maybe our watcher was a warehouse worker, low in status and intelligence. All its face parts were shrunk towards the chin region. It had no obvious eyes but an extravagant head-dress that may have been organic and included sensory organs.

It moved from its squat, but without standing up, a slow fat thing with dark skin rough like an elephant's, oozing from its pores. It came closer, smelling like a wet basement. The monk began something in German, and one of our men said "Shut up!"

"Was geht?" said the Dur Ossur, canting its head in puzzlement.

"Do you want me to kill it?" our man asked the monk. "If not, keep your bloody mouth shut. Tell it nothing."

By this time Samantha's toxin was wearing off and another of Heider's henchmen came through. I turned my attention from the Dur Ossur for a second and took in the rest of the warehouse.

It was a depot, and the center of its own universe. Our iron box lay near the end of a long row of "coffins," and in the first of two columns. Signposts showed numbers and letters in old blackletter Gothic. Our own planet Earth and the Franciscan Order was obviously the source of most of the goods distributed among the rows.

This was all I had time for. The Dur Ossur made up its mind as to what we were and began shlumphing off, in the manner of something that could be a biped, but preferred otherwise.

Heider himself came through. The Dur Ossur was still in sight when he wheezed back to life, pulling himself tall and handsome again, long hair a bit disheveled. The sight of this alien transfixed him as it had most of us. "Poor lady. She can't leave the building," he said. "Not with the sun bright."

"She?" Sam asked.

"She's a neuter female. The females with sexual capacity never leave the Ponds." Heider turned to the monk. "*Wo sind die Andere?*"

"*Klassen*," the unfortunate monk said. He pointed.

The Franciscans had taken a corner of the depot and built classrooms beneath the arching dome. Our gang kept an edgy eye in that direction as more invaders came through. It became obvious that the Dur Ossur was heading for help, but stopping her with gunshots was counter-pro-

ductive. "We'll have a confrontation soon," Heider said. "It's best done quickly, and without slaughter."

A few of his men looked as if they disagreed, but Heider Hummel was the boss and so we waited until everyone had come through. Then we formed up and hurried, alarming the Dur Ossur, who called out, "*Hilfen! Ausländer!*"

Monks piled out of the far rooms. From what I saw of their blackboard they'd been drilling in some writing system used God-knows-where. Of course they had no weapons.

No weapons? One was a teacher in the German tradition, whatever his nationality. His voice had power and he spoke coldly: "Why guns? Who are you? If anyone's been killed on the other side—"

"No one's killed," Heider Hummel interrupted. "If the answer to this question is your first priority, send one of your own through and back again. The one who should hate us is none of your number, and, on my honor, Janet Olson will have recompense."

"Why are you here with all this armament?" another Franciscan asked, a stern man with eyebrows like God himself.

"To prevent you from hindering us," Heider said. "We have a plan and a program, and expect no interference."

"What is this plan?"

Heider stepped forward. "The treaty is abrogated. King Mut is dead. These last years, who knows how many, when he was alive, the Queen in whom lay his authority was a dead mummy in a walled-in pond. For all King Mut's life you did not consider that the Dur Ossur were capable of such deception, until a new contender crossed the wall and found her corpse. But now we know they can lie. For six hundred years this same King with this same morality had the power to search everywhere on Moab that their species can reach, looking for weapons and high technology. Now we claim the same power, for the dry nine-tenths of Moab that only humans can explore."

"This 'treaty' is between King Mut and some God-knows-when-Emperor."

"Albert of Austria," Hummel said. "Be careful. You have no rights here but by treaty or guns, and the treaty is overthrown."

"We do good here. That is our right," said the lead monk. "You represent nothing. There is no empire these days. You're here to plunder an empty world. The natives destroyed themselves and now you'd take their terrible weapons back to Earth."

Heider turned to the Dur Ossur. He reached for Samantha's arm. "This is a human female," he told her. "This is what they're like *when they're young and fertile.*"

The Dur Ossur spoke in German—this was the lingua franca of Moab: "We have a new king now, brave to climb the wall into the Pond. He has more courage than old King Mut. He will fight until there are no more humans on Moab. This must happen because you've broken the rules."

Heider turned back to the Franciscans. "Hear now! The threat is sure. Flee to Earth or any other place where your hearts and loyalties lie. We

will defend this depot. In the future, if you hope to use it, you will pay for the privilege, which we will earn with our blood. You will continue to send food until we can assess the local situation."

"Where did you get such arrogance?" the first Franciscan marveled. "With these few men—"

"Do you think the Dur Ossur have learned anything these six centuries? We defeated them long ago and we have better arms now," Heider said. "Their kings will bluster and some will die. We'll let the rest live on tolerance."

"What if we don't choose to go?"

"We can drop you into the box, with or without the benefit of paralysis drugs," Heider said. He looked at me and switched to English. "In any case you and Samantha can go. We've done a thing today it was brilliant of me to improvise. We have crossed a line and there is no ambiguity. We'll have war, and a new treaty. And just maybe, the start of a new empire."

"I've read about people like you in books," I told Heider Hummel. "I never expected to see one in reality."

"I've not been at a loss for words until now," Heider said. "Goodbye, good Janet. Go back to your old safe life."

Sam and I were taken back to the proper box, given injections, and dropped through. It's possible to whirl in any of three dimensions; roll, pitch, or yaw. My previous "waltz" was a yaw-trip. This time I bobbed head-over-heels-and-reverse a long three minutes through the dim cold and was lifted out into the cave below the monastery. Sam followed. We were hustled along and interrogated by the abbot of the monastery, helped by a translator. The process was interrupted as more monks came through, exiled from Moab. Afterward we swore to silence. Still later someone drove us to pick up Sam's car.

My cell phone was in the trattoria. I punched out the numbers for home. Melody answered the phone, excited about some Hollywood people who had dropped in at our house last night and taped an audition. She'd read for a part and had even been given a contract! "All I need now is an agent!" she said.

What the hell? What was I to make of my cheerful bubble-headed daughter? "Did your lines include stuff about being tied up?" I asked.

Melody stopped in mid-babble. "How did you know?"

"So you never were *really* tied up?" I asked this question softly.

"Did Dad talk to you already?" Melody asked. "Is this a joke?"

"Hold everything until I get home," I told her. I clicked off and closed my eyes in thought. Getting my daughter starry-eyed about Hollywood was only a little less cruel than tying her up, but in the end I grudged Heider a point to his credit. A point for non-violence. God, what a schemer!

We had little daylight left. Sam and I drove into darkness and border crossings and eventually reached Trieste. Sam preferred silence to elaborate apologies. "I was tricked," she said at last. "I was lied to. I'm sorry."

"Our world might be better without its Heider Hummels," I answered. Thinking back, I'd been manipulated like a chessboard pawn, and Sam had been used to goad me each step of the way.

We reached my hotel. I spoke again. "Ordinarily I'd put myself in your

place and find some sympathy, but right now I'm exhausted. What's terrible is that I doubt I can get to sleep."

Sam laughed. "Try a bottle of the local brandy. As for me, I'm probably out of a job. Heider had connections with my company. Palsy-walsy with the Swiss directors."

"Maybe they'll promote you to keep you quiet," I said.

"You don't want any company tonight to share that brandy?" she asked.

"I think not." I felt a little bitter, but this was my choice and I was what I was.

When I got back to Illinois I stalled on telling my daughter Melody that her screen actor's contract was just a piece of paper. I was exhausted and faced piles of work at the office. Cowardice won out. It was just as well. Next day Heider Hummel's connections got Melody a role in a local TV commercial. I didn't have to think hard to figure that if I kept my mouth shut, other good things might happen.

I could have contacted the Feds, of course, on the theory that no one wanted Moabite weapons of mass destruction to show up in the Balkans. But if I clued them in, factions in our government would have grabbed all they could get from Planet Moab, and they'd do a faster job than Heider and his few men. Quick. Ruthless. Fanatical. Need I mention I'm of the opposite political party?

I decided to play safe. Small-time Heider had his hands full. His men had the Dur Ossur to defeat. They belonged to three language groups and some were criminals, capable of mutiny. Were Earth women zooming in to keep them happy?

I thought of Drago Sabotnik and all his money. Drago was a lonely ascetic who had talked too much to me, and maybe he'd talked to other friends about his work on Moab, setting Heider in motion. *He should have known better.* He should know better than to tell me news if I gave him a phone call, impelled by mere curiosity.

I called anyway, leaving my number at the monastery. Nothing happened for a couple of days. I had no right to expect an answer. Then Drago called and left a voicemail message: "Try me at the Hotel Izola in Izola. Don't call from your own phone but do use a land-line. Or else—but I don't suppose you fly to this part of the world very often even if Trieste is one of the world's insurance centers."

Don't use my own phone? Where in northern Illinois could I walk in and make a long-distance call to Izola without attracting attention? I took half an hour to solve this problem and then I was on the line. Drago picked up the phone. "It's midnight."

"Sorry. Janet Olson here, returning your call."

"Oh. Well yes. Hello. How are things with you?"

"Could be worse. I have an over-excited daughter. How about you?" I asked.

"We're all very happy," Drago said, sarcasm in his voice. "We're all on the same side now. That's probably a surprise to you, but it was either that or an unthinkable alternative. And the big H put on a charm offen-

sive. Besides, it turns out he was right. The flabby, stinky Dur Ossur folded without a fight."

"So women have been going across?" I asked.

"What women do for love, eh? Even for this unlovely crew! But Heider has sent the worst to explore the ruins, the ones who have no women, and some of us hope they never find their way back. Sorry, that was un-Christian of me," Drago apologized.

"Heider's been lucky," I said.

"Lucky or smart. He wants me to persuade you that there'll be advantages if you keep quiet about all this. He wants you to help found a new company."

"Are you working for him now?" I asked.

"I should resent that," Drago said. "But we have to get along. And things may start to happen that got stalled for centuries under the Franciscans. I've always had an itch to explore. Moab is a hub, not only for the planet itself, but—well, you saw all those other coffin-boxes."

"Yeah. Remember *Homeland Security*. The days of phone privacy are gone. Let's ratchet back the conversation."

"Yes, we should," Drago said. "When do you next come to Europe? And where?"

I mentioned a couple of dates. "It's either Frankfurt or later in Scotland."

"A daytrip from Frankfurt brings you close," Drago said. "We can talk about your new company."

In America, companies have HR departments, provide benefits and issue W-2 forms. They're total snitches to the IRS. *Public* companies have to snitch to their stockholders. In Europe the burden is equally great, except in countries that specialize in the opposite. Drago and I met in Liechtenstein and that's where *Chemosch Entdeckung* began to grow real, in a manor house that was rented for the occasion.

The house was flanked by an ornamental pond crusted with an early-winter skein of ice. A guard with binoculars paced the parapet. Anti-bug-ging devices created a space where spy radios could not work.

Drago made the introductions and I shook a half-dozen hands. A woman in a wheelchair gave a short speech. Eventually Chemosch would have an engineering department. Reverse-engineering would decipher the principles behind Moabite devices, and not just weapons but other stuff too. There'd be a law department to file patent applications. God knows our accountants would have to be fancy in their skills, fancy too in their moral scruples. Above all, our explorers had to be paid. That was an absolute rule, even if those explorers didn't work anywhere on any official map.

Heider's older sister offered as my first job the task of finding and hiring these explorers. Here was a challenge for a woman as *safe* as me. Where do you go for people like that?

Soldier of Fortune magazine? Show up in tough places in New Guinea, Alaska, and the Central African Republic, waving contracts in the air? Maybe I should hit the *Historical Cartographer* mailing list.

The truth is, people wouldn't sign for the kind of vague prospects I dared hint at, unless they'd made a mess of their lives. Did I want people like that?

I drew my first paycheck and flew back to the United States without having any brainstorms worth Heider Hummel's faith in me. I was a fraud. I certainly hadn't given notice at my old job. What was the point? Zero ideas meant zero time spent pursuing prospects.

Melody and Annette were in the back seat as Ken drove us home from the airport. They zoomed out the door as soon as we parked, eager to get to the TV and watch for one of Melody's commercials. The feature that took place between ads was one of those spin-off reality shows.

For every person in televised never-neverland glumly eating witchetty grubs, there were a hundred applicants, eager to do something unconventional for fame and money. *Where did I go to find the list of reality show rejects?*

My daughter Melody was an expert at this. There are agencies that deal with screenings. This being America, those agencies had no qualms about selling names, as many as we wanted.

I could deposit my paycheck without feeling guilty. I was on the job. I was working for Heider Hummel. *He* was the guilty one. It was amazing how well I could rationalize my behavior, and now I was ready to do unto others as had been done to me. I was going to lie over the telephone, and change people's lives.

Well, I couldn't tell the *truth*, could I? Chemosch company policy was to keep the truth secret as long as possible. So I had brochures made up and began working down the list, telling people about a new reality show concept—a scavenger hunt for artifacts in a thousand-year-old ruined city. All they had to do was supply health certificates and sign a confidentiality agreement and a quitclaim and they'd be on salary. We'd pay their air fare and hotel expenses.

Within the week I'd collected my first dozen. I called Drago and warned him to stick video cameras in their gear. "They're under the impression all this is for TV," I said.

"What happened to your moral scruples?" Drago answered. "I guess you went to hell, just like me. Any mechanics in your gang? We've taken a Volkswagen Thing apart piece by piece, and sent it through. We're putting it together on the other side."

"We have a mechanic, a nanny, a chocolatier, a shoe saleslady, a computer geek, a medic, a jobless TV reporter, a wine expert, a high school teacher, a dental hygienist, a cowgirl from Montana, and an ex-priest. That's just the first crew. There'll be a second crew in another week."

"These are thousand-mile desert treks," Drago complained. "We can't fit camels through. Little donkey colts, yes, but it'll be months before they're grown. What I'm saying is, don't push people on us too fast."

I shrugged. "I could go back to my old job."

"You still have your old job?" Drago asked. "Don't we pay you enough?"

"I have teenage daughters," I answered. Drago accepted my comment, but in fact Melody was earning good money. I didn't need my insurance job, which was boring when it wasn't stressful.

Life was stressful enough. Melody got a call and was offered a part in a movie being filmed in the swamps of Belize. Being filmed *right now*! She said yes, leaving it to her parents to provide chaperonage and home schooling for the next two months. In the end the whole burden fell on Ken. My husband collected books, lesson plans, and luggage and flew south with both daughters, the culmination of a four-day whirlwind.

The house was suddenly empty. What was I to do with myself these next months, especially if I quit the insurance business? I fingered my brochures and thought about exploring an alien world. I'd sent Team One to Trieste. Team Two was waiting to go. Given a one-coffin supply bottle-neck, that was all Chemosch could handle just now.

I gave notice. My twenty-year career was over. Team Two would contain a kosher butcher, an architect, a retired Coast Guard officer, a secretary, a day-care cook, a Navajo composer of new-age music, a power-plant engineer who repaired antique cars, a nurse, a mountain-climbing heiress, a bankrupt pickle-maker, a website designer, and now—a former insurance company executive.

Drago was our greeter. We met at the same hotel in Trieste, and I was the only one who didn't look for nonexistent camera crews. The pickle man and the Navajo recognized my voice but I was reassuring. Afterward Drago took me aside. "This might be interesting," he said. "The ancient Moabites brought other species to their planet, not just the Dur Ossur. Some survive in the dry regions. There may even be humans."

"Why are you telling me this?" I asked.

"Because our first explorers got spooked and worse," Drago said. "Worse meaning shot at."

"Shot at?" I wasn't ready for this.

"Arrows," Drago said. "We'll send you someplace different. That first bunch couldn't have high technology if they're using arrows."

"We of course will have guns galore," I said.

"Certainly, whatever your vehicles can carry. Have I told you I met the new Dur Ossur king? His German was very good. He was a hospital medic before he decided to challenge old King Mut. His exploits of bravery are enlightening. For example, he crossed a bridge."

"Yes?"

"That's tough for a Dur Ossur. Climbing a wall, even tougher. One gets the impression the Dur Ossur are a bit soft. If they survive on Moab, the other species can't be that terrifying."

"If I get killed, I'm going to be very vexed at you," I said.

"Oh heavens no. It's all H and his family. Blame them. But you'll have guns. The gunnery of Balkan freedom-fighters being what it is, those original arrow-shooters are thoroughly extinct."

My meeting with Drago got interrupted. Our team of explorers needed help with aspects of life in a posh Italian hotel. Over the next hours my esteem for my husband and daughters as travelers went way up. By contrast, my eleven comrades had problems with lost shoes, elevator phobia, and a case of diarrhea. These were the tough people who were going to explore a new world!

Tough, maybe not. Give me Ken, Melody, and Annette any day. But buff, yes. And eagerly eying each other, trying out relationships. Next day we herded them into a bus and drove south. Drago led them through choruses of Dalmatian folksongs. We lunched on wine and prosciutto, and then we reached the monastery.

Schoolboys gave us a jaded eye—yet more tourists. We packed in, nursed the phobic website-designer down the basement elevator into the cave, and finally lined up by the coffin. First our bags went through, and then ourselves. A couple of people might have chickened out except for the video cameras, recording their heroism for posterity.

On the far side the rules were different. No one was coddled anymore. Heider Hummel came from his command post by the depot door, called me “old friend” and waved us to a hand-drawn map, hung over a blackboard.

“We’ve set out stations with fuel and supplies along the ancient autobahn,” he said, pointing with a stick. “This first part is barren gravel. The next part used to be a lake. Now it’s a salt flat, very dusty if there’s a wind, and there’s always a wind. Keep by the skirting road or you’ll lose your landmarks.”

My team raised a few hands. Heider ignored them. “After the salt flats things get better, scrubby, with bushes. Then comes a volcano. The ancients must have been interested because the autobahn makes a bend at the volcano. There might be mines, or quarries. Then the road turns east and comes to a hilly area. The city that’s your final destination lies at the edge of the hills. You may see greenery and even open water, because our weather models indicate sporadic rain during the monsoon season.”

“How are we going to get there?” the Coast Guard guy asked. “Isn’t this a long distance away? This is going to take a lot of time.” What he meant was, time doing something that wasn’t interesting to watch on TV.

“We have a fully operational Kummelwagon with a supply trailer. You’ll be carrying supplies forward, setting up new advanced stations,” Heider said. “The volcano is your first goal, but of course if you see anything interesting along the way, pick it up. Don’t worry about the time. You’ll be paid in proportion to the time and risk.”

“Risk?” asked the day-care cook.

“There might be people up there, or—others. This is virgin territory. For six hundred years the monks made few forays. Mostly they copied ancient maps and that’s what we’re working from.”

My team of eleven were shaken enough to guess that they weren’t play-actors in a TV script, but they weren’t sure. Maybe this was a terrific set-up, beyond anything they’d seen before. They didn’t want to seem like idiots so they decided to go with the show.

We divided up responsibilities. We introduced ourselves to the people around the depot, and got shown around in a mix of English, Croatian, Italian, and German. As evening descended, we encountered a real live Dur Ossur ambassador, waking from her day-nap. At this point the truth sank home. I made myself scarce, in case there were hard feelings.

A delegation found me in my sleeping bag. “This is real, isn’t it?” the Navajo asked. I nodded and his face lit up. The heiress, the nurse, and the

engineer felt the same joy. The website designer said she'd see me in jail for breach of contract. I wished I'd had the foresight to use a false name.

Next day the nurse went around with a notebook, writing down our blood-types and extending her notes to include our entire medical histories. "I wouldn't have taken this record for a TV show, but this is serious." The others went through similar transformations. Our cook took inventory of our supplies, for example. We'd be rationed from the very beginning.

Heider was impressed. "The other gang didn't do their jobs this thoroughly."

"Where did you send them?"

"North through the gravel desert, but bending west where there's a fork in the autobahn. It seems the ancients were warlike enough to build a long north-south wall at some point in their development. The Latin globe calls it *Terminus Mundi*. A few days ago they went to check it out."

"What did the ancients look like? Any idea?"

"They left mummies. The monks have pictures."

The mummies had buck teeth and shovel-shaped claws and shocks of orange hair. If you melded a naked mole rat with a plastic troll from a Scandinavian curio shop, you'd get the idea. You'd have to plump out the image, of course. Desert mummification tends to shrink. But like the Dur Ossur, this was not a species committed to bipedalism. "If you see anything like this alive, treat it like God," Heider said. "They had a space empire once. We'll show them the utmost respect, no matter how goofy they seem. But I take no encouragement from recent events. Bows and arrows? The descriptions sound like humans to me."

"Speaking of bows and arrows, what about a few hours of weapons training?" I said.

Planet Moab had long days and we had time for this. Later, one of the monks who were now Heider's buddies taught us some Moabite symbols we might see on road signs. By evening we were ready for a *bon voyage* feast. Drago volunteered to substitute for the website designer, who made it clear she wasn't cooperating. She hadn't gotten a boob job and a tummy tuck in order to risk real death.

I was surprised that the rest of Team Two was gung-ho, but Tony the Navajo spoke for them when he said, "There's a book in this. Or better, a documentary." And so next morning we rolled off. We found a path through the nearby hills and into the gravel desert, a region un-eroded by rain and too warm for winter frost. The ancient autobahn was still a fast track here. Our needle climbed to forty kilometers per hour.

Late that day we reached the first station. Team One had been there before us, and we groused at the mess they'd made. The next day was a repeat of the long monotony, with a few diversions where the road had crumbled. The wind grew stronger. Our tents flapped in the night.

Secretary Linda found a "cootie" in her shoe in the morning and that was our introduction to native Moabite life. It was a miniature of the now-extinct natives, and unlike Earth bugs, it used lungs to breathe; puff, puff, puff. We stuck it into a bottle with airholes in the lid.

Next day we tasted salt dust in the air, which grew dingy as we paral-

leled the pitted, caved-in autobahn. We reached the fork where Team One had turned west, and we envied them. As for us, we'd be in the salt flats two more days even if all went well.

That night we drove extra hours with our lights on before we found the last supply station. The next morning the wind relented and we broke camp with regretful slowness, now heading into unknown territory. Hours went by before the Coast Guard guy pointed. "Look there."

We saw a rust-brown flier. It veered toward us. We unbagged our guns. The flier grew to the size of a pontoon raft with no evident wings, a protected platform where people crouched, notching their bows. A few arrows went zing and we returned volleys of fire. Bullets ricocheted; tissue, blood, and bones went splatter. The flier whisked by on a declining trajectory, bellying to the flats as we drove fast to catch up. It plowed a short distance before it stopped.

Some of the crowd in the flier were prisoners, including two members of Team One. "Stop! Stop it!" they shrilled, pressing themselves to the floor. Their captors were dead, bleeding, waving knives, or tumbling out to continue the fight. They had no concept of surrender. "Stopping" was not in our power. The lad we trussed up slit his throat with an obsidian knife rather than be taken.

"It must be cultural," Drago said. "Their five prisoners are all women. Males are supposed to fight to the death."

We freed the Team One schoolteacher and the cowgirl. Carefully we studied the three others. Like the enemy, they were Sahara brown, with short wool-white hair. The irises of their eyes were pale gray and the mid-day glare gave their corneas a pinpoint look. They were quite female in all departments although their thighs didn't taper correctly. We knew about the thighs because they wore nothing but straps of leather. "Barbarian princesses," the engineer said, exercising his imagination. "We'll take them back and win the gratitude of the King and be heroes."

"First we've got to get this flier to headquarters," someone else said. "It's the best artifact ever! How the hell does it work?"

We tried various languages on the three "princesses." One of them saw Linda's cootie-in-a-jar and fell on her knees in worship. What this communicated was not useful. The Team One captives had no idea what the flier used for fuel, but the cowgirl thought she knew how to make it go. "At least we can fly it south to the next station and keep on, station by station so we're not stranded if it gives out."

"What about the Kummelwagon?" someone asked.

"Screw that. This flier is a million times more valuable. There's unknown physics involved here."

"It's got to be a thousand years old," I said doubtfully.

"Then it'll make it another year and another few hundred miles," said the pickle man.

In the end we voted. I got to drive the Kummelwagen back south, with the kosher butcher keeping me company. The Team One teacher opted to join us, mistrusting the rust-raft and especially the three princesses. The cowgirl got the flier going, zigzagging at first, and we followed until it became a mote in the dusty haze and finally disappeared.

The winds began gusting again. "So did your team ever reach the wall?" I asked the schoolteacher, who was unnaturally quiet.

She shook her head. "It's no wall. Or maybe we didn't go far enough."

"What is it then?" the kosher butcher asked.

"I taught astronomy," the teacher said. "Worlds with striped bands are gas giants. Like Jupiter. A red-banded Jupiter."

"What are you talking about?" I asked.

"You only see when you cross the line," the teacher said. "Moab must be lock-faced on a gas giant. When you cross west, you start seeing the red bulge on the horizon."

"You mean Moab's a *moon*?" I asked.

"It's awfully close in," the teacher said. "That's obvious given a twenty-eight hour day, which means a twenty-eight hour orbit. The bulge is a huge thing. We never got far enough to find out how huge. We were distracted and then the wild men attacked. The place we were at was almost grassy. They were able to sneak up." She coughed. "That one white-eyed bitch gave me a cold," she said, scratching herself. "Jeez, this salt-dust stings."

Her coughing and itching got steadily worse. That night she started wheezing. Her last ten minutes were terrible as her lungs stopped working. After she died we collapsed her tent and left it like a shroud.

"We have to assume the disease is contagious. We don't know the incubation period," said the butcher.

I nodded. "Let's go. We'll drive in shifts."

I was first to take the wheel. By now I looked like a planetary explorer; dusty, wild-haired, eyes darting widely in fear of new menaces. My companion consoled himself with Croatian brandy and despite the zero humidity and nocturnal chill, he managed a few beads of sweat. During a brief conversation he damned Heider Hummel, perhaps unfairly, for not setting up a radio-phone system that we could use in emergencies like this.

Day dawned and he was asleep. I got my second wind and continued. My dry cough could be anything, right? I hadn't necessarily caught a killer disease.

Eventually I let the butcher take over the wheel, drank sips of brandy, and took a turn trying to sleep. My cough went away. Then—damn—it was back.

My driving buddy started coughing too. We tried not to notice. He edged up the speed and we made it into the land of gravel.

We had two days left to go but we made it to the turn-off in thirty hours, stopping only to refuel. We recognized the place by the wheel-tracks but also by a column of smoke on the other side of the hills. Was it Heider Hummel's signal, or something worse?

We had the rising sun behind us. Ahead was medical attention. We were both definitely coughing now, and more than a little itchy. We gunned the Kummelwagon. As we crested the hills, my friend had me fire a few rounds as a signal to those ahead.

The smoke dwindled away. We rolled into base camp. We found a pile of burnt bones. No flier. Not much else. A voice from the depot said, "Stay right there. You've been exposed?"

"We're not sure," I prevaricated.

"You'll know within the day," Heider said. "The same with us. So far, there's a zero survival rate. Those three girls stole the flier and flew off, so it's all for nothing. This disease is only a bad cold for them."

"We can guess they were exposed to some of *our* diseases," said another voice.

"Drago!" I answered. "How are you?"

"I've got the itch. It won't be long now."

I spoke, using up what was left of my voice. "Listen, the way this works at the end, it's like paralysis. The same as the neurotoxin we use to make it through from Earth to Moab. So maybe there's an *anti*-neurotoxin."

"We're not going back to Earth to find it," Heider said. "We don't want to be responsible for spreading this disease to Earth."

There we were, stymied. Everybody waited to die. I collected some water and found shade. I meant to ask how many were still alive inside the depot, but I never got around to it. I felt weak and queasy. Breathing became difficult.

The sun moved, taking my shade away. Somewhere I heard someone's last struggles, a few stentorian gasps before his lungs shut down. My own gasps grew worse. I was dizzy. Disoriented. I saw Drago crawling close through the glare, choosing to die with a friend.

It was such a struggle to breathe. Such a struggle. But then—not such a struggle. Could it be that the crisis was over? I looked at Drago. He seemed asleep. He wasn't dead either.

We were the only two baking in the noonday sun. The only two apparently alive. Hours later, I tottered to my feet, found new water, and drank.

I found a bench and drowsed some more. Drago came shambling. "Heider's dead. They're all dead."

"Except us."

"Why us?" Drago looked at the westering sun. "Maybe that's why the wild people go naked. Solar exposure. We lay in the sun, and lived."

I got up and held on until I felt less faint. I went into the depot to see if the truth was as gloomy as Drago thought. "Hello? Hello?" No one answered.

Next day Drago and I summoned the strength to drag bodies to the pyre. We sprinkled them with gasoline, and threw a match, and muttered prayers. Then we went back inside. "We'll know if there's any lingering contagion," Drago said. "People will come through the box. They won't know not to. If they live, it's okay for us to go home to Earth."

"We can drop a message through. Tell them to stop," I said.

Drago shook his head. "What if our message isn't sterile? We can't risk that."

Neither of us wanted permanent exile, so we sat, pondering quarantine-morality with dulled minds until our appetites and vigor returned. Some new supplies came through, followed by a curious monk.

He was not grateful to learn he was a guinea-pig, perhaps doomed to our same exile. But we watched and he did not catch the disease. We shared food and handshakes to make sure. In the meantime, others came through.

The depot returned to what it was before Heider Hummel's invasion. Drago and I decided we were free to go back to Earth, the last remnant of *Chemosch Entdeckung*. We rested in Trieste one additional day and went our different ways.

Illinois again! I caught up on messages from Ken even before I landed at O'Hare airport. I reoccupied the house and next Monday I called to see if I could get my old job back. My twenty years with the company meant something, I suppose. It meant I was put on the list with other applicants and would be interviewed for the vacancy quite soon. *Definitely*. What a favor!

I checked for email on the computer downstairs. A new message popped up from Drago. "I've reported our sad news to Hummel's sister in Liechtenstein. She's sold me all her family's shares of *Chemosch Entdeckung* for one euro. I've given it some thought. We know that there are valuable artifacts on Moab. We know how to deal with that first disease. Is this really the time to give up? Think about it. I've got enough money to fund another expedition. I'll be waiting for your long-considered answer."

I thought about it. Twenty-three people I'd hired were dead on another world, and though they'd signed papers, there'd be inquiries. Why *ever* would Drago buy Chemosch and set himself up as the target for all those lawyers?

Well, we'd be targets anyway. Point one.

Point two: If we were on another world, the lawyers couldn't get to us. Back to Moab after all?

I sat down at the kitchen table. Hours passed and I switched on the lights. I started writing Ken a long letter. I managed fifty-six pages in honor of our old love and a safe quiet past I'd never see again.

I left the house the next morning. ○

THE WEREWOLF ESCAPES HIS WIFE

What is it draws the corners of her mouth
down into points like a pair of fangs,

beside the fear of rising some howling midnight
to half a length of chain snaked in the moonlight,
its last link broken open like a pair of jaws,

the fear he is never coming back,
or the fear that he is?

—William John Watkins



Jay Lake's first novel, *Rocket Science*, is now available from Fairwood Press. The author publishes short fiction regularly in major markets worldwide and lives in Portland, Oregon. He can be reached through his Web site at <http://www.jlake.com>. Jay's most recent story for us, "Martyrs' Carnival," appeared in our June issue. He returns to our pages with an eerie look at the power of . . .

DARK FLOWERS, INVERSE MOON

Jay Lake

"**T**here are only two paths to magic." Speaking from the borrowed pulpit of the tiny Episcopal church, Germaine Templar smiled beatifically. Her dark face was obscured to toothy shadow by the hood of her white aba. "One leads through the bright moonlight and the other through the dark of night."

Bullshit, thought Sally, lurking in a pew near the back, only a few scattered heads between her and the speaker. There's a million ways to get things done. Unfortunately, you only get to do one of them. And you're lucky if you get that much.

Sally had come here for the same reason she went to so many lectures and meetings—seeking a path to lead her out of the thicket of Skill and loss in which she had been trapped for too long.

"You can reach deep inside your heart," the other woman continued, "to what the ancients called the *omphalos*, the navel of the world. Standing in that place, you can see both paths."

Sally's mouth crinkled. If this Templar had the Skill her words hinted at, the real magic of the everyday world, the Colors of Sally's thoughts and mood would be a shout in the dusty church. But Sally didn't believe

in this woman. She hadn't believed in anyone or anything in the four years since that night in California when Skilled had died during her Bringing, staining her own new-Brought Skill. Sally slipped from the pew and walked quietly out into the vestibule. The lecture was just another New Age fraud and she was hungry for barbecue.

The sauce wasn't the greatest, but the smooth, smokey flavor of the beef brisket lay across the grain of the meat like butter on toast. Sally especially loved the crunchy outer shell of the end pieces, where the tang of salt and fat mixed with the crackle of burnt meat. And nothing beat the mouthwatering smell of barbecue.

Everybody from *Texas Monthly* to *The New Yorker* raved about Black's and Kreuz's in Lockhart as two of the best barbecue joints in Texas, but for Sally's money, Chisholm Trail down Highway 183 at the other end of town was just as good as either of them, with half the hassle and a quarter the price.

The place resembled a down-at-the-heels Elks' Hall, paneled walls hung with hunting trophies and old newspaper clippings. The service was about to the level of a high school cafeteria but the sausage and brisket excelled. Who cared whether they could make a decent potato salad? Sally was pretty sure the cook was Skilled, had come to the meat recipes that way.

"You sure Colored up nice and snotty in that church."

Sally looked up, surprised anyone was speaking to her, to see Germaine Templar again, now dressed in a Texas A&M sweatshirt with a tray of food in her hands and a smile on her face. No longer obscured by her aba, Templar was a beautiful broad-featured woman with skin the color of black coffee and liquid brown eyes, already along into her thirties—perhaps a decade older than Sally.

Templar's voice was more gentle than her words as she said, with the faintest hint of a Caribbean accent, "Don't usually find Skilled at my little pitches."

"Little con jobs, more like it." Sally chewed her mouthful of brisket. She deliberately didn't acknowledge the leading comments about Skilled. "And somehow I doubt your Momma named you Germaine Templar." Too much heavy-handed mysticism in that name, Sally told herself—le Comte Sainte Germaine and the Knights Templar rolled into one.

Templar laughed. "No, but that is what it says on my driver's license. Impresses the natives, at least the ones that kept reading after they left high school."

Sally noticed that the other woman didn't respond to her remarks about con jobs.

Templar sat down at the Formica table. Her orange plastic tray was covered with small bowls filled with different colors and textures—charro beans, collard greens, mashed yams, okra, and creamed corn. They all swam in varying proportions of butter, water, and iodized salt, accented by the dank smell of the steam tables.

"No one comes here for the vegetables." Sally nodded at the food.

"Company ain't so good either," the other woman said, "but you take what you get in this life."

Sally stared at Templar, willing her to go away. She didn't want to like the other woman's charm and good looks, didn't want to give Templar a handle with which to dig deeper into the conversation.

Templar stared back. "If you truly feel that way, why did you come to the lecture?"

Was this woman a Telepath, Sally wondered, to know what she was thinking? Her teacher Wei-Lin had said telepathy was not a truly useful Skill—too much garbage and nonsense in the average person's stream of thought—but some were entranced by the idea of it.

"Why did I come? Curiosity. Your flyers were interesting." And loneliness, after four years of running from blood and flames, for the company of the Skilled. Sometimes she even longed for the touch of Skill itself.

Templar leaned over the table. "But you knew it was crap before you came, right?"

"Yeah. Sometimes crap is interesting." Sometimes crap stinks, too.

Templar laughed. "With the right crap, you can meet some surprising people out here in the sticks." She forked runny vegetables into her mouth, meeting Sally's stare with a placid, centered smile that rolled as she chewed. The silence extended out between them, a curious absence of tension for a minute, then two, infusing Sally's cautious hostility with the possibility of trust.

"I'm no mind reader," Templar continued, "but some things are easy enough to see, Skill or no Skill."

"Hmm?" Sally bit into a stale roll and wished she had some more brisket.

"I need something done by someone with Skill, someone with a different perspective than my own. You can maybe help me."

Sally swallowed her mouthful of roll, dry throat barely taking the dusty bread. Nerves, she thought. This conversation was getting to her. She didn't even read Colors any more, the least and smallest use of Skill. There was no way Sally was going to Skill for some smiling con artist. She shook her head in an emphatic negative.

"I said *maybe* help," Templar said. "And maybe I can help you back."

US Highway 183 from Lockhart to Austin was thirty-five miles of rolling four-lane blacktop that gentled over the Central Texas hills. The countryside was splashed with springtime bluebonnets and Indian paintbrush, the brilliant colors of the flowers in turn dotted with cattle, mesquite, and live oak. An occasional stand of cottonwood followed a watercourse at the base of the slopes. Traffic was light, even for a Tuesday evening.

Somehow, Sally hadn't been surprised when Germaine Templar said that she needed a ride into town. Sally wondered where the other woman had stashed the robes she used during the pitch. She felt vaguely ashamed that Germaine could see the rumpled sleeping bag and smell the dirty clothes in the back seat of her battered Toyota.

Somewhere around Mendoza, a town consisting only of a tractor-repair shop next to an abandoned general store, Germaine stopped staring out at the cows and the cotton. "I once met a guy whose Skill was basically cruise control."

Sally laughed in spite of herself. "One thing you get to do in the world special and he picked *cruise control*?"

Germaine shrugged. "Skill's like the rest of life. You try to make choices that fit. Mike, he came to it late, already had steady work as a long-haul trucker. It made sense to him. Now he sleeps on the road while his Skill drives. He stays rested, has time to read, write, do whatever. He's had two novels published in the last three years. His book jackets claim he's an astronomy Ph.D."

Sally wondered what her choices fit. Not much, not lately. Not ever.

"I'd like to meet the teacher who Brought him to his Skill," Germaine continued in a quiet voice. "She must have been real smart about life choices."

Sally felt a twinge of guilt and pain, those Siamese twins of the soul. She hadn't spoken to Wei-Lin since that terrible night in California. Been afraid to at first, the wounds of Mallory's death, then Ben's, too raw. Later, she'd been too ashamed.

They crossed the overpass above Texas 21, heading into Mustang Ridge, speed trap extraordinaire. It was a town in name only, living off revenue from anyone driving their highway foolish enough not to be a local. Sally dropped the old gold Toyota Corolla to just under fifty-five as they swept past a junkyard.

People didn't talk about Skill unless they were very good friends, or maybe family, or worked together with Skill. Sally didn't have anybody like that in her life, hadn't for years—no friends, no family, no Skilled. She didn't want to know Germaine well enough to discuss Skill or anything else with her. But despite herself, Sally couldn't help liking the woman's direct approach. Sally hadn't been met with openness in a long time.

And Germaine was . . . interesting.

Germaine contemplated their brief view of Survival Haus Liquor and Ammunition. "Only in Texas. Only here." She turned from the window to face Sally across the weathered tan interior of the car. "I'm from New York, originally, but Maman was Haitian."

"Yeah." Sally hid within her most neutral tones. This was worse than talking about Skill.

Germaine's voice tightened as she spoke. "A lot of Skill comes out of Haiti, but it gets used in some odd ways. Stereotyped, like in a bad *zombi* movie."

Necromancy had never interested Sally in the slightest. She had been told that dead people were boring, fixated on old grudges and lost loves. A lot like live people, come to think of it.

Germaine continued. "Thing about talking to dead people is, after a while, you don't listen to the living any more."

Sally's hand strayed toward the radio. She wanted to shut the conversation off, smother it in NPR chatter, but felt trapped, a fly struggling through the honey of the other woman's memories. The Toyota rolled down the slope toward the creek at the bottom of the valley among the cotton fields. Top of the hill, and she could drop Germaine at the Exxon station. Let those oil-soaked bastards do something for her.

Germaine had lost all the smile in her voice. "That's what happened to Maman. Too many dead people." Her tone veered into a mocking sneer, briefly picking up a Caribbean accent. "Where did Aunt Trudy hide the silver? 'Who was it that really killed you, Tranh?' 'Cici, we love you.'" Germaine sighed. "After a while, Maman didn't have any words left for me."

"Why would anyone think they needed to tell the dead they loved them?" The Exxon was coming up, but Sally's foot stayed on the accelerator, keeping the Toyota at a steady fifty-three miles per hour. Sally realized that she was committed to the conversation. She had broken cover and re-engaged.

"There are some things the living need to say to the dead." Germaine's voice had dropped to a miserable, quiet whisper. "Sometimes, there are things the dead need to say to the living."

"Like what?"

"Did you know that there are Skilled among the dead?" Germaine asked abruptly.

"Everybody dies, sooner or later." Except, thought Sally, those lucky few rumored to have found a truly life-extending Skill. Always a subject of speculation, that, when speaking freely of Skill. At least back when she'd been speaking freely.

"No, I mean there are dead who practice Skills. Vivimancy, for example—speaking to the living." Germaine started to cry, small tears jumping from clenched eyes as her breath shuddered. "Control of the living. Maman calls to me from the Other Side, talks to me, and I can't shut her out and I can't help her and I can't do anything and, oh, *mon Dieu*, I need help. . . ."

Sally watched Maha Creek go by her cracked windshield as Germaine sobbed. The tears were pouring now, the woman had lost almost all control. They were out of Mustang Ridge, she could speed up. She could drop Germaine off at the Texaco in Pilot Knob. Easy enough to call a cab from there, then Sally could just drive away and leave this strange black woman crying her sorrow by the side of the road. Sally had been taught by the best that there was no loyalty among the Skilled. Damn Ben and Mallory, for wrecking her love life and the fate of her Bringing Five. Being dead was no excuse. They'd shown her that there was no brotherhood of the Skilled.

Or in Germaine's case, sisterhood.

Sally listened to herself in horrified fascination as she spoke the words she dreaded. "What is it you want me to do?"

They sat in the dimly lit dining room of El Azteca, a run-down Mexican joint on Seventh Street, deep in East Austin. Their little aluminum table with its naugahyde chairs was surrounded by brightly colored doilies on every flat surface, soft-porn wall calendars, and endless shelves of Mexican bric-a-brac. The smell of oil and red beans was embedded in the fabric of the restaurant.

The food was authentic, the place was usually quiet, and nobody ever bothered Sally there. She had at first been reluctant to share her little East Austin sanctuary with Germaine, but the peaceful restaurant

seemed a good place for the woman to calm herself. And Sally wanted to show Germaine something nice about her own life, nicer than the fact that she lived in her car.

They sat at a small table in the back of the dining room, an untouched basket of chips with guacamole between them. Sally had ordered Cerveza Pacifico, Germaine drank ice water. Little puddles of condensation from the cold drinks made random rounded shapes on the table.

"So what can you tell me now?" Sally asked. They both kept their voices low, a reflex in any Skilled discussion in a public place.

"Maman comes to me in dreams." Germaine's voice, even when quiet, was clear and strong again, the Skilled speaker Sally had first heard in that church in Lockhart. "I know the dreams are true, because I can see the Colors."

Almost all of Sally's dreams were in Color. In her experience, that didn't necessarily mean they were true, but it at least signified a strong correspondence with reality. In her waking life, Sally avoided Color with the routine apprehension of a dedicated paranoid.

"Maman, she speaks to me." Germaine's smile was crooked. "Her English was never so good on This Side."

Sally felt a gentle flutter in her heart, responding to the other woman's sadness. "What does she want?"

Germaine's lip quivered as her face shook. "She has some great work of Skill she pursues, over there. Maman wants me to send Skilled to her, to the Other Side."

"Send her Skilled? How would you do that?"

Germaine drew her breath through clenched teeth. "Literally. Maman does not say it in such words, but she wants me to kill Skilled."

Sally stared at the other woman. Sally didn't doubt for a second that Germaine could and would act as she must to preserve herself and her Skill. The weak of character and purpose were not Brought to their Skill. It couldn't be done to a weak vessel. Such people tended to shatter, or die as Mallory had.

Except, thought Sally, in her own case. She was the exception that proved the rule. "I suppose Maman doesn't want me dead, huh?" Sally tried to make it sound funny.

Germaine smiled again. "Maman is, shall we say, quite specific."

Sally considered that. She had only ever known one Necromancer, Gavin in her Bringing Five, and she hadn't even stayed around long enough to see him Brought to Skill. "I've been told the dead are dull," she ventured.

"Vengeance, jealousy, that's what keeps the dead here. That much of my pitch was true, about the two paths. Love is what allows one to pass on through the Other Side to greater things. It is hate that keeps one hanging on. Only the obsessed stay."

"Just like life," Sally said. "Love sets you free. Hate lasts forever."

Germaine laughed. "And sometimes Skill can illuminate the difference."

Sally liked the way Germaine's brown eyes gleamed with her laughter. The two of them were the same height, which could be nice in romantic situations. She smiled back at Germaine. She couldn't remember the last

time a smile had felt so natural. It had been so long since Sally had allowed herself to be close to anyone. "If the dead are so dull, what makes your Maman a live wire?"

Germaine didn't quite lose her smile this time, but the pain flickered back across her face. "Her great work. On the Other Side."

"What great work? What is she doing over there?"

"I don't know." Germaine tugged at her fingers. "She does not listen when I ask her questions. She only tells me what she wants me to do. As I said, she is quite specific."

Sally tried another tack. "Specific, how?"

"Which Skilled she needs from me," Germaine said.

Had Sally misheard? "You mean which Skills, right?"

"No." Germaine shook her head, stared sadly at her hands. Sally noticed the broad, blunt fingers, nails worn with work. "Which Skilled. By name."

It came to Sally then, what bothered her. "Killing people by name, that's not need, that's vengeance."

"Not Maman!" Germaine looked shocked. "She was ever too gentle. She is not that way."

Sally shook her head. Germaine's story didn't hang together. Maman's ambitions had been misstated somehow. "I can't explain it, not yet, but I know something's wrong here."

"You know through Skill?" asked Germaine.

"No . . ." Sally laughed, her voice suddenly bare as winter trees. "That's not how it works for me."

Germaine took Sally's slim, pale fingers in her large hands. The warm pressure of Germaine's grip caused Sally to gasp, made her want to weep. She was so touch-hungry, she could have drowned in the rough calluses. She almost didn't hear Germaine say, "Maman can wait. The dead are patient. Girl, tell me, you wear pain in your Colors like a bloodshot eye. What has happened to you?"

In four years, Sally had never once told the story of her Bringing Five—Mallory's cerebral hemorrhage at the Bringing, Ben's dying in the van wreck as they fled, Wei-Lin Bringing Sally to Skill while they both stood knee-deep in a culvert, Sally's panicked desertion of her friends and teacher—but once she began to talk, it tumbled out. As she spoke, Germaine sat with silent patience, hands upon Sally's wrists, as if to draw her from the drowning pool of her memories.

"I was Brought to Skill as a Finder, because I wanted to help people," Sally finally said through her memories of scrambling through Sonoma Valley vineyards in the dark.

"Oh, girl," Germaine whispered. The other woman's slower breathing was exactly half the tempo of hers, matching every other breath. The musky scent of Germaine's sweat mingled with the mellow guacamole and the salty oil tang of the chips. Plates rattled in the kitchen as distant voices murmured in Spanish.

Sally wept into the intimate space between them. "Some Finder. I can't find my car keys. Some days I can't even find my car."

"I thought you'd hotwired that little Toyota." Germaine spoke softly, lavishing gentle humor on Sally's raw heart. She kissed one of Sally's hands.

"It's the only way I can drive without my keys." Sally sniffled, wishing Germaine would kiss her hand again. "If Mallory failed hard, then I'm the softest kind of failure. I ran away from the dead and the living. I didn't ever want to hear about Skill again." She sobbed outright. "And to hell with Skill. Germaine, I've never even read *Colors* since."

Sally woke to the sharp smell of eggs and onions. A bitter tang of coffee wafted through the sunlit room. She rolled over, hugging a pillow. It was faintly oily, a hair scent, overlaying the aroma of another person's sleep. Sally smiled. She was in Germaine's bedroom, on her futon, looking out into the spring pecan trees and the warm sunlight of an April morning in Austin.

Clinking plates echoed gently from the kitchen. Sally sat up and looked for her socks. They hadn't made love, they hadn't even kissed, but Germaine had held Sally while she cried, then rocked her to sleep.

Sally hadn't been touched on purpose by another human being since Wei-Lin had pressed her forehead with blood and ditchwater, to seal the Skill. She had come to believe she would never be touched again.

"I can hear you breathing," called Germaine from the kitchen.

"Yeah, I'm awake." Sally immediately yawned. "Where's the john?"

"To the right, next to the closet. Mind the litter box."

Sally shuffled into the bathroom, wondering what Germaine's late Maman had to say about last night.

The eggs were firm, with runny yolks staring up like the eyes of surprised clowns. The onions were lightly grilled, just enough to ease the sting, and Germaine had yesterday's sourdough from Texas French Bread, still chewy and full of body. Sally turned down the threatened soysage, preferring to hold out for greasy meat later in the day somewhere else.

"Vengeance, hmm?" Germaine sipped on a mug of Central Market roasted blend as Sally buttered her bread.

Sally had been deciphering the coffee mug's animal shelter logo, and was caught off guard. "What?"

"You said vengeance, not need. Talking about Maman. Yesterday evening at El Azteca."

"Oh, yeah." Sally cut around the yolks with the side of her fork, shoving the peppered white slivers through a little pile of salsa. "Here's how I see it," she said, recapturing last night's train of thought. "If your Maman needed Skills for her, uh, great work, she would ask you for Skills. Why ask for individuals? She should be saying, 'Germaine, I need a Finder,' not 'Germaine, I need Sally Prescott.'"

"I don't know," Germaine said. "It seemed logical to me. It's not like the Skilled have a directory or something. You can only get so much from reading *Colors*. I mean, look at you. I knew you were Skilled, I knew you were deeply upset, and I knew you were very sharp. That's why I followed you into that crummy little restaurant in Lockhart."

Cold stole into Sally's heart. "So you just wanted something from me, that was it, huh?"

Germaine seemed much less frightened and angry in the morning sun of her little apartment. "Because I thought you could help me discover whether Maman is lying."

Dishes cleared, they sat across the kitchen table from one another holding hands. Germaine cleared her throat, then launched into the formal introduction of the Skilled. "My Five was Brought by Aristides, a Skilled from Haiti. He was Brought by Marie-Paul, who was Brought by Carlito, and so on back to Izangoma Mbele, Master at the head of our Bringing. Ours is a slave line, Brought generation to generation in the dark of night in fire and blood."

Sally bowed her head in respect. Skills from slave lines often had great power, but it was power bought with a multiplicity of pain.

"I was first of my Five," Germaine went on, "Brought to Skill as a Seeker. Pallas was second, Brought to Skill as a Healer. Michel-Michel was third, Brought to Skill as a Venator—a huntsman. Joseph was fourth, Brought to Skill as an Advocate. Lisette was fifth, Brought to Skill as a Temptress."

Germaine stopped talking. She sat quietly, looking into Sally's eyes with a formal expectancy.

"My Five—" Sally stopped for a moment. Even as she'd told Germaine the story last night, she'd never laid it out in the simple formalisms. "I . . . was Brought by Wei-Lin, a Skilled from San Francisco. She had been Brought by Cassidy, who was Brought by Hiroshige, and so on back to Hildegard, Mistress at the head of our Bringing."

"Thank you," said Germaine.

"Thank you." Sally stared at her hands clasped within Germaine's for a moment, then spoke again. "Aristides must have liked powerful Skills. No Butchers or Bakers or Candlestick Makers in your Five."

Germaine made a face, holding in a laugh. "In none of his Fives, most likely."

"That's not how Wei-Lin taught our Five to think about Skill."

"Hmm?" Germaine invited without demand.

Sally sighed, stared out the window at the mockingbirds in the pecan trees as she remembered brocaded chairs and the maroon fall of tapestries in opulent rooms above the Mission District. Five of them, with their Bringer, sipping a tawny port while they eagerly discussed the ways they each wanted to work in the world.

She thought of Wei-Lin's words. "My Bringer taught us that Skill is, well, it's a way to get things done," she told Germaine. "In our Five Mallo-ry wanted to be a Projective. She saw that as a path to power in business and politics. Petra just wanted to sculpt." Sally paused. "Wei-Lin said everyone has Skill, even though most people never display more than a little bit of talent. She said that's why there are Wild Skills, people that were never Brought. We're all born with it. But however we come to our power, we only get to choose once."

"The old problem of Skill." Germaine tugged her lip. "Aristides hates

that. All things are possible, but you can choose only one. He has dreams of organizing a world of Skilled, building powerful Fives to make changes for everyone." She laughed. "He also thinks reading *Colors* is little more than a parlor trick. But that's most of what there is to Seeking. My Skill."

Sally felt the same little mental jump she had in the restaurant, like a puzzle piece falling into the pattern. Was her Skill stirring once more? The idea frightened her, but it also pleased her. She turned the newborn puzzle around in her head, considering what Germaine had told her. This wasn't about Maman. Aristides' ambition underlay Germaine's problem, surely as the sun rose in the east. "Aristides told you that?" she asked. "About organizing the world of Skilled?"

"Yes." Germaine slipped one hand out of Sally's lingering grasp to sip from her coffee. Her face settled into an unaccustomed stillness. Sally wondered what echoed in Germaine's memories.

"Slave lines," Germaine continued, "we have a different view. Kind of like witch lines among the white folks. Having a few predecessors burned, not too different from having a few hands chopped off. 'Never more' is what Aristides says. Skill is a way to make sure things get done, to make sure some things never happen again. At least," she paused to sip again, "not to us."

"Skill is a way to make sure things get done.' That's very coercive," Sally said in a careful voice. Her thinking was getting better, clearer, like being back in the apartment with Wei-Lin. Being pushed to think was a good feeling. "Top down, authoritarian logic. Not at all how my Five was taught. Not how I was led to believe that Skilled work together."

"Hmm." Germaine continued. "Aristides wants things to happen, for him, for his people. He sees Skill as a way to make it so. I wanted to be a Seeker, so I Sought for him for a few years before I moved on."

"And the rest of your Five?"

"Still with Aristides, I suppose. We don't talk much since I left New York."

Sally worked the puzzle in her mind. It was like rediscovering muscles she'd forgotten she ever had. "Tell me, did Maman come to you last night?"

Germaine smiled broadly. "I never slept, girl. I spent all night with my nose in your honey hair and thought bad thoughts."

This time, they both laughed for real.

The two of them looked at the tattered sheet of paper Germaine had pulled from the refrigerator door from under a pair of "Free Tibet" magnets. Nine pairs of names and skills were written on it, each line of words radiating out from an invisible center. They were like a penciled sunburst coming from a blank hole in a paper sky.

"This is them?"

"Yes," said Germaine heavily. "Maman's list. I woke up one night standing at the kitchen counter. Had a twelve-inch kitchen knife in my right hand and a pencil in my left. Don't usually write left-handed."

"I can tell." The writing was blocky, odd, uneven. Sally turned the paper in a slow circle on the kitchen table. Unsurprisingly, she didn't know any of them. "Five of these names look French to me."

"Six or seven, maybe. George is a perfectly good French name, and so's Nancy."

"Or Haitian?"

Germaine shrugged. "Maman knows who Maman knows."

"I don't see any pattern in the Skills."

"And?"

"Well, there was a pattern in your Bringing Five. Wei-Lin would have called that a 'power Five.' My Five, we were mixed. She used to call us a 'basketball Five.'"

Germaine sputtered coffee as she laughed, spraying brown drops across the hit list. "What, girl? You jacking me!"

"No, no, like a pick-up basketball team. You know, a Crafter *and* a Necromancer *and* a Projective. No theme, no mission. Just teaching people to use what they have. Not all organized like Aristides' dark-side social activism."

"And these Skills?"

"If your Maman is executing a great work on the Other Side, there would be a pattern. She would look for binding Skills, or reaching Skills, or destructive Skills. Not this random collection."

"Maybe she's filling in gaps." Germaine didn't seem to believe her own words.

Sally tried again, the puzzle in her head continuing to shift. "What obsesses Maman enough to keep her close on the Other Side for this great work, as you put it? Vengeance? Hatred? She must have been a good human being to raise a nice girl like you. How did she find so much bitterness later in her life?"

"I don't know," said Germaine. "I just don't know. As Maman got older, she drifted away. Too many dead to talk to. But she never held things hard in her heart, not even near her end."

"And now this woman wages war in heaven?" Sally snorted. "Come on, Germaine. Something doesn't fit. Your Maman wouldn't be stalking Skilled now, not if she never did in life." Aristides, on the other hand, she thought, sounded like a man who would do anything.

"But it is truly Maman in my dreams. I see her Colors."

"All right. You see Maman's Colors in your dreams. So tell me, what do these people have in common besides being known to Maman?"

Germaine stared at the paper. "I cannot say. But I know of a Venator, a huntress, out on the west side of town. She's a busy woman, but she sometimes makes time for Skilled with problems. She might help us."

"Venator, huh?"

"They're pretty close to what the unSkilled think of as psychics. Object resonance, clairvoyance, that kind of stuff."

"Speaking of psychics, I think I can find my car today," Sally said.

They both smiled.

The Venator's house was up on Cat Mountain in West Austin, a rambling brick ranch home of the sort usually found with expensive British or Japanese four-wheel-drive vehicles out front. The green Range Rover in the driveway was true to form. A little Mexicano in dark blue work

clothes hunched over in the pansy bed, ignoring Sally's battered gold Toyota as it pulled into the concrete driveway.

Sally's nerves had gotten the better of her. "So, what, we knock and say, 'Hi, we're Skilled?'"

Germaine pursed her lips. Somehow, Sally thought, even that was cute. "You been running since that night in the wine country, girl. There's an etiquette to these things that you've forgotten."

Or never learned, thought Sally, as Germaine rang the doorbell. Sally wished she had gone to the Laundromat for a change of clothes. Germaine looked terrific in a pale green silk pantsuit with a little round cap in red, black, and green Afro-Caribbean colors. Sally wore the same cotton print blouse from yesterday, the one with the flying fish and the beer bottles. Not to mention barbecue stains. Her jeans felt grungy and tight.

The woman who answered the door was pure Junior League, a former debutante without a hair out of place. She looked at them both briefly, then glanced down the street. "You all'd better come on in."

The Venator wore a starched white oxford shirt, khaki pants, and a pair of high-heeled cowboy boots with silver toe-clips. Her frosted blonde hair was stacked up in an echo of a beehive do, and she wore more makeup than Sally used in a year. Her accent was the pure dee corn pone you found among successful attorneys and advertising executives around Austin. She could have been any age from thirty-five to fifty.

"In the kitchen," the woman said, leading them through a limestone-walled living room done in about thirty shades of taupe.

They all gathered at a large butcher-block table under a rack of shiny copper pans that showed no signs of use. The big steel-door refrigerators had some half-hearted children's drawings clipped to them with Bible verse magnets, but the pictures looked lost in the brushed metal immensity. The hum of compressors buzzed in Sally's ears. The kitchen smelled new, like no one had ever cooked in it.

Germaine smiled at the Venator. "Thank you for your time, ma'am," she said in a quiet, formal voice.

"Don't thank me yet." The Venator sounded almost kindly. "You have come to me, so you should begin."

"My name is Germaine, and I am a Seeker. I was Brought by Aristides, a Skilled from Haiti. Aristides was Brought by Marie-Paul, who was Brought by Carlito, and so back to Izangoma Mbele, Master at the head of our Bringing. Ours is a slave line, Brought generation to generation in the dark of night in fire and blood."

Both women looked expectantly at Sally. She trembled, palms sweating. Yesterday when she had told Germaine her line of Bringing was the first time Sally had recited the formula since the night of fire and water where Mallory and Ben had died. But this ritual was expected, even normal among Skilled. Sally was terrified, her new-found confidence in Skill deserting her.

"I can see fear in your Colors, young woman," said the Venator, "but life has certain patterns. Believe that I will honor your trust."

Refusing to think about it further, Sally opened her mouth and spoke. "My name is Sally, and I am a Finder." The lie lay easily on her lips before

she realized that, perhaps, finally she wasn't lying any more. "I was Brought to Skill by Wei-Lin, a Skilled from San Francisco. She was Brought by Cassidy, who was Brought by Hiroshige, and so on back to Hildegard, Mistress at the head of our Bringing."

The Venator looked surprised. "I might have guessed you were of a witch line."

"In a manner of speaking, she is," Germaine said, "as fire and water both dominate her past. But quite recently and not in the way that you think."

"No matter. I am Billie Sue, and I am a Venator. I was Brought to Skill by Laytha, a Skilled from Fentress. She was Brought by Wayne, who was Brought by Flora Lee, and so on back to Joanna, Mistress at the head of our Bringing. Ours is a witch line, Brought generation to generation in the face of trial by fire and water."

"Thank you, Billie Sue," said Sally.

"There's always a price to pay somewhere, even though I don't often collect it personally. Now what brings you girls here?" It was clear Billie Sue was pressed for time, but she spoke with patience and grace even as she glanced at the clock above the sink.

"I have a problem in the Skill," Germaine smoothed the hit list out on the butcher block. "Sally thinks I am not seeing it properly."

"We're looking for the connection between these Skilled," Sally added in a rush.

Billie Sue picked up the paper, rotating it slowly in her hand. She touched the scrawled graphite of the penciled words, gently rubbed the vacancy in the middle. She held it up to the light, examined the watermark in the paper, then glanced at Germaine. "This your hand that wrote this?"

"Asleep, with my off hand," Germaine flexed her left hand, studying it as if it were newly sprouted from her wrist.

"Not you, then." Billie Sue handed the paper back to Germaine. "Someone writing through you. I reckon you have a theory about whom, but I don't want to hear it yet. Give me a telephone number, and copy that list in your true hand. I need to think, to hunt some on this."

Germaine pulled a business card out of her silk jacket, scribbled on the back with cramped, tiny writing as she rewrote the hit list. Sally caught a glimpse of the face of the card as Germaine passed it to Billie Sue, saw the words "at law." She gave Germaine a sidelong glare.

"Thank you, Billie Sue," said Germaine. "I am in your debt."

"And I will answer for her debt at need," Sally added, dredging up the formula from Wei-Lin's lectures years earlier.

"The debt belongs to all of us," Billie Sue rubbed Germaine's card with the fingers of her right hand. "You all know where to find the door. I'm fixing to leave in a moment myself, so don't set around in the driveway too long."

Sally drove down Cat Mountain toward Ranch Road 2222, finding their way back into town. The steep street lined with juniper confounded her perspective, so she concentrated on following the curb line. "I saw your

card. Back there." It was a challenge, the first fight brewing in their not-quite relationship.

"So?"

"You apparently forgot to tell me you were a lawyer." Sally found her voice hardening in spite of herself.

"What does it matter?" Germaine's voice rose in pitch. "I told you about my dead Maman, I'm supposed to mention Columbia Law? Would you care if I was a glass blower?"

"Lawyers are different." Sally felt sullen, stupid, even as she said it. Out of the corner of her eye, Germaine seemed to flare red. Was she seeing Colors as well, now?

"Lawyers are people too," Germaine grumbled. "We get bills in the mail and pee sitting down just like everyone else."

That last image broke Sally's concentration, completely derailed her anger. Relationships, like Skill, took practice. Thank God this was just a little stumble. Giggling, she said, "I thought you paid law clerks to pee for you."

Germaine's big smile returned. "No, they just wipe for us."

They laughed together all the way to the highway.

"Look, honey." Billie Sue's voice crackled over Germaine's cell phone, dropping in and out. Sally hated the gadgets, but Germaine had pulled it out of her jacket and handed it to Sally before disappearing into the Travis County Courthouse, "on business." Sally drove repeatedly around the block, looking for a place to park and watching her gas gauge fall. "I found a connection, but there's a powerful lot of Skill watching those names. You girls need to be careful."

Sally tapped the brakes, slowing to make a turn. "We're careful, I promise. What did you find?" She hung a left onto Lavaca Street, to quarter the far side of her little drive while passing the Governor's Mansion for the seventh time in the past few minutes.

"Those names, they were all Brought to Skill by teachers who were Brought by Marie-Paul. She's the one that Brought your friend's teacher Aristides to Skill." Billie Sue pronounced the name wrong, "Heiress-titties." Everyone on that list is from the same slave line as Germaine, all from three teachers, including hers."

"Who Brought your mother to Skill?" Sally asked Germaine. Sally drove too fast down Guadalupe, toward the river.

Germaine bit her lip for a moment. "Marie-Paul, who was Brought by Carlito. Maman and I, we're out of the same slave line."

Marie-Paul, who'd Brought the teachers of everyone on Germaine's hit list. More of the puzzle fell together in Sally's head. Her Skill seemed to itch, like new skin growing under a scab. She pulled over to the curb in a bus zone, drummed her fingers on the steering wheel. "You said her English is better, too. Better how?"

"Maman is speaking to me in English, not French or Creole."

Sally plunged into the depths of her intuition. "Germaine, it ain't your Maman talking to you from the Other Side. It could be her voice and her

Colors, but it ain't your Maman. It's Aristides, and maybe Marie-Paul through him. They want you to hunt down people from the Fives of Marie-Paul's Fives. You're being pushed to kill people from your own slave line."

"We don't ever do that." Germaine whispered to the window glass. "That's against everything we stand for. 'Never again,' he said."

Sally grinned her nasty grin. The puzzle in her head made more sense all the time, the pieces sliding together in increasingly complex patterns. "Coercive, ain't it? I think Aristides is tracking down people who know too much about him, people that don't want to play his game any more. Eliminating loose cannons in his effort to organize Skilled, maybe picking up a posse on the Other Side in the process—just as a little bonus. All through your Maman."

Germaine sucked her breath through her teeth, her entire body seeming to loom larger inside the little car. "Nobody uses my Maman that way and walks free, not on This Side or the Other."

"Agreed," said Sally, "but we need help for this."

Sally grabbed a space in the parking lot of the Faulk Central Library, the mother ship of the Austin Public Library system. She marched in the glass doors, driven by the shifting puzzle in her head, while Germaine shoved quarters into the parking meter, then hurried to catch up.

"Where you going, girl?" Germaine gasped as she followed Sally up the stairs inside. "You peeled away from that curb and made for the library like your hair was on fire."

"Reference." Sally continued to work her mental puzzle as she marched across the second floor reading area and through the open book stacks.

Germaine persisted. "Reference to what?"

Sally walked to the aisle stocked with telephone directories from around the country. In one swift move, she grabbed a Pacific Bell directory for Marin County, opened it in her hand, and stabbed a finger down, without ever looking. Sally stared Germaine in the eye, defensive pride overflowing her face.

Germaine craned her neck down to read the listing over the tip of Sally's finger. "Stabile, Petra. It shows a Mill Valley post office box for the address."

"From my Five." Sally's voice was tight. "You came to me for help, I found us help."

"I thought you said you didn't know where she was."

"Germaine, I couldn't remember where the *library* was until I led us through the door."

The two women looked at each other, sharing big, stupid smiles. Sally wondered when she and Germaine had become "us."

She felt good to be an "us."

Back in Germaine's apartment Sally sat on a Bedouin pouf, clutching the cordless phone like a safety line. The receiver clicked as someone answered. "Hello?" A woman's voice.

Sally wasn't sure from the sound that it was Petra, but the puzzle in her head added more pieces. "Petra, this is Sally."

There was a silence, only the echo of the line and very faint crosstalk in some tonal Asian language. Sally waited out the silence. She could hear Petra breathe, slow and ragged. "Sally. Sally Prescott?"

"Yeah." They'd had months of continuous contact, a fellowship deeper than most siblings ever had, followed by four years of absolute silence.

"I—we—thought you were dead." Petra took another deep breath. "In the hills above Highway 12 that night."

"I'm right here. On This Side."

"Gavin looked for months, on the weekends, trying to find your, um, your body."

Sally could imagine pale, wiry little Gavin in Doc Martens and old blue jeans crossing estate fences and climbing through culverts searching for her. It was the kind of thing he would do.

Petra continued. "Wei-Lin died, two weeks after you disappeared. Internal bleeding from the wreck."

"Oh." Sally's eyes stung. Ben's fighting in the van had caused the wreck where he'd died. But Wei-Lin . . . a third fatality from her Bringing Five. "Oh."

Had Wei-Lin worried over her? Perhaps not. There were failures from time to time among the Bringing Fives, although few as spectacular as theirs.

The years stood between her and Petra, blocking the telephone line, guarding the three deaths they shared. Sally felt her nerve eroding, her certainty of the solution ebbing away under the pressure of the lost time, the lost lives. Even Ben, whom she had cursed ever since that night, was a sudden tear in her eye.

"Girl?" whispered Germaine, stroking Sally's hair.

"Where are you?" Petra suddenly snapped, her voice back to life, colored with anger and relief. "Are you safe?"

"Safe, yes." Sally realized it might be a lie, but in another sense was also truer than it had been in years. "Safe for now, and trying to solve a big problem."

"All right." Petra's voice was still tense. "If it brought you out of the woodwork after all this time, it must be a real prize-winner."

Urged by the puzzle in her head, Sally rushed into her solution. "I need your help. You and Gavin, if you can find him, and we need a Projective."

"Gavin's right here, dear. And we have lots of friends, if you know what I mean. When and where do you need us?"

Sally realized that Petra wasn't even going to ask what was wrong, or why it had taken this long for Sally to tell them she was alive. Petra didn't have to know more than Sally's need. The trust of the Five, that she had envied, that she had longed for since her terrible Bringing, was as real for her as she had ever dreamed.

"Austin, Texas, as quickly as you can get here." Sally had Germaine's American Express on the low table before the pouf. It was a platinum card, the first Sally had ever seen. "I have a credit card here."

"Oh, Sally." Petra sighed. "Don't worry about money. We'll be there. Just give me a number to call when we get in."

* * *

Against all her expectations, Sally slept well that night. She wasn't willing to share a bed with Germaine again yet, especially so soon, but they had kissed goodnight before Sally curled up in the basket chair in Germaine's living room and passed out into a dark, dreamless sleep.

The next morning she awoke to another fresh-cooked breakfast. The odors were a little more challenging than yesterday's as Sally slipped into a seat at the kitchen table.

"Cheese and eggplant on toast. Grow my own vegetables, you know, over at the Sunshine Community Gardens." Germaine was too damned cheerful in the mornings. "All the vitamins and minerals nature ever intended for you."

Sally thought it tasted like a salted sponge, but still she gulped hers down. The puzzle slid back and forth in her head, trying different configurations. Sally felt whole for the first time in years, her Skill returning in confident strength. "Did you dream last night?"

Germaine nodded, her mouth full of eggplant. "Maman," she mumbled. "Speaking English?" Sally's voice was sharp as her eyes narrowed.

"Don't be like that. You know I believe in you."

"Well, what did she say?"

Germaine shook her head, eyes now on her plate. "I don't remember."

Sally stared at Germaine, willed her to speak, flexing her newfound power of silence.

"Maman . . ." Germaine's words stumbled. "Maman says she just needs one Skilled right now."

Sally waited out the pained pause.

"Sally, Maman wants you."

How did Sally's name get on the hit list so fast? She wondered if the Venator had sold them out. It didn't matter. The puzzle writhed in her head. "Not Maman, Germaine, but Aristides," Sally said firmly. "Aristides wants me."

Germaine stared at her plate again. "I'm sorry."

Sally ignored her. It all made sense, the puzzle clicking and shifting in her head. "If I'm on the hit list, it's because Aristides knows about me. Maman might even have given you my name to warn you, depending on how much control she still has. But if I'm right about Aristides working up a power grab, building Fives of Skilled on the Other Side while eliminating his loose ends on This Side, then I've become one of those loose ends. The most dangerous one. Aristides must have people flying here from New York right now, surely a good Venator at the least. Guns kill a hell of a lot faster than Skill."

"What will you do?"

Sally realized that she hadn't told Germaine her plan with respect to Petra and Gavin. Hell, she hadn't told herself her plan yet. She and the puzzle in her head were making it up as they went along, running on Skilled intuition and low-grade panic. "I'm going to lead us on a great work of our own. We're going to assemble a Five with Gavin and Petra and whoever they bring for a Projective, and that Five is going to help Maman. But we need a sacred space, a spiritually safe place close to the Other Side. I think I know where, not far from the airport, actually.

That number you had me give Gavin and Petra was your cell phone, right?"

"Yes."

"Fine. They'll call when they get in. We've got to get moving."

Germaine stood, walked to the sink and set her plate down. "Where to?"

"Got any bolt cutters? We're going to church."

The abandoned Montopolis Church of Christ stood in four or five acres of wildflowers, mostly bluebonnets and Indian paintbrush. It was an old black church in an old black neighborhood, hand built from scrap timber and corrugated sheet metal. An enormous live-oak tree rose just to the east side of the ragged building, punctuating the wide carpet of blue and red flowers. The congregation was long departed for better quarters, but the church still anchored the neighborhood within the flow of history.

Sally drove past the church, turned off Montopolis Drive to park along Walker Lane. The neighborhood around the church had never been wealthy, but it had decayed to a serial palimpsest of low riders, rusted pickups, unmowed lawns, abandoned swing sets, and all the other paraphernalia of urban poverty in the New South. Sally and Germaine left the gold Toyota parked behind a burned-out Cadillac frame-down on the pavement and walked back toward the church. Germaine carried the bolt cutters from her tool kit wrapped in an Indian blanket, while Sally had a small gear bag.

"How'd you know about this place?" Germaine asked.

Sally laughed. "You mean, because I'm white?"

"No. Because it's an odd part of town."

"Best wildflowers within twenty miles of downtown, right here. Come Sunday, all the kids will be out here in their Easter clothes for the annual photo. When I was in high school I used to drop by every spring to take pictures and admire the scene."

They crossed the sandy turnout that marked the remains of the church's driveway and walked a narrow path through the wildflowers toward the church door. Bees buzzed, servicing the riot of red and blue as well as their more reticent neighbors, pale wild clover and maroon wine cups. The meadowed yard smelled of green and growing things.

The church steps led to a narrow white door, made of one-by-four planks. For all that the church exuded an air of elegant decay, someone from the congregation must have been maintaining it. The door was clean, the white paint bright, Bible verses painstakingly lettered in black across the header trim and the planks of the door itself.

"The entrance of thy words giveth light," Germaine read.

"For a great door and effectual is opened," Sally added. "Strive to enter in by the narrow door."

"I can see why you wanted to come here." Germaine unwrapped the bolt cutters. "This whole building has powerful Colors." She stood close to the door, shielding her hands with her body as she worked the bolt cutters.

Sally didn't yet feel fully comfortable with reading Colors, although the thought no longer frightened her. She looked back across the bees and the

wildflowers at the desultory traffic on Montopolis Drive. No one was watching them.

The padlock snapped under the pressure of the bolt cutters. Germaine grunted as she eased it off the hasp. She shoved at the rusted knob, wincing as the hinges shrieked. "Open the door and let your sister in."

Sally took the bolt cutters from Germaine's hand and stepped inside. "Don't forget the phone."

"Hello? Sally?" Petra's voice echoed from the church doorway.

Sally stepped back from the makeshift workspace she and Germaine had created. Two Indian blankets lay in front of the old pews shoved away from the preacher's lectern, surrounded by candles and incense boats, with lavender scattered about. Several hand mirrors and two small basins filled with bottled water hastily purchased at Eckerd's perched on the blankets. It was as close as she could come to the feel of the teaching room Wei-Lin had used for their Five. Her heart jumped with memory and anticipation. "Come in."

Germaine hurried over to the door. "Come on, girl, don't let anyone see you out there."

Petra stepped in, followed by Gavin and a trim, handsome, white-haired man in a worn pilot's jacket, one of those green ones, not leather. Sally looked over the old man for a moment—was he really a pilot?—then turned to Petra.

Her Five-mate was tall and pale, just over six feet, with a nose so large it would have ruined the looks of a smaller woman. Petra's black hair was cut in the same Prince Valiant she had worn years earlier, shot now with lines of gray. Her large brown eyes stared steadily at Sally. Petra's mouth creased into a smile. "Sally, it's really you."

Small, wiry, with that indefinably English pasty complexion, Gavin stepped past Petra. "Lovey, you *do* live and breathe."

He gathered Sally into a tight hug, which Petra joined. Sally felt as if she was among family, the way she had always imagined family was supposed to look and act.

"Gavin, Petra, I . . . thank you."

Petra shook her head. "You're alive, that's enough for me." She let go of Sally, stuck a hand out toward Germaine.

"Germaine, I'm Petra."

"I gathered." Germaine's voice was dry as she took the offered hand. "And the little man glued to Sally must be Gavin."

"Guilty as charged," said Gavin over Sally's shoulder, all grinning yellow teeth with bad British dental work.

"Sally, Germaine, this is Robert."

"Suits," Robert said, in a gentle voice with just a trace of the Midwest, slow, polite . . . charming. Sally warmed to him immediately. "Robert Matthew Suits. A Projective. Ain't crashed one yet."

Sally watched Germaine shake Robert's hand, formal as two bankers meeting. As Robert turned toward her, Sally shook his hand as well, and smiled. "I'm glad you're here, Robert. You've come a long way for someone you don't know."

Robert met her eye, a bright smile of his own dawning. "I owe Petra a debt of Skill. We agreed an urgent service for her long lost Five-mate seemed worthy repayment."

Gavin paced the interior of the church. "Nice place you gels have here. Good Colors, too. Perfect for power Skill work."

Sally looked around the dusty church. It was hot in the late afternoon, even for Texas in April. Smudged windows high up covered with chicken wire let in muted light. Mismatched old pews, wood dried and cracked with years of neglect, filled the sanctuary at random angles. Sally and Germaine's vandalism of the church had been as respectful as possible.

The walls were odd patches of paneling, cut wood and bare beams where the corrugated skin of the building showed through. It was a place of hand-built quiet, of peace, of spiritual centering. Sally felt the echo of generations of choirs calling and responding, congregations clapping their way to a vision of glory she had never shared but would nevertheless borrow shelter from now.

"What are we doing here?" Robert asked softly. "What is your need?"

The puzzle in Sally's head rolled into a new position with such a firm movement she expected to hear an audible snap. "Going to the Other Side to stop a very dangerous man."

Robert and Gavin shared glances, while Petra just stared at Sally, her mouth crooked with pride. Sally smiled at all of them as they gathered into a circle, like any good Five. "First, though, let us greet each other properly."

Sally let her Color sense focus for the first time since Ben had died, since Wei-Lin had Brought her to Skill. Their ad hoc Five blazed with strength, curiosity, impatience, love, all the Colors of active, healthy minds, all of them tinted with the overlay of Skill. It was her turn to lead, finally after all these years. "My name is Sally, and I am a Finder. I was Brought to Skill by Wei-Lin, a Skilled from San Francisco. . . ."

They each sat cross-legged, in a circle on the Indian blankets. Outside, the day faded into a burnt orange sunset, the creaky screech of the gathering grackles subsiding into the lonely peeps of nighthawks and the chittering shrill of Mexican freetail bats. Scored with the smoky odor of a single candle, the smell of lavender hung in the air around them, mixed with the old paper scent of stored hymnals and the gentle rot of the aging church.

"Finder, Seeker, Crafter, Necromancer, Projective." Petra shook her head, smiling at Sally. "You don't do anything the customary way."

"I go my own way." Sally shrugged. "I guess we all go my way, for now."

"We are your Five," said Gavin formally.

"We are your Five," echoed the others.

"We are here to craft with Skill." Sally saw the Colors of her Five blaze with expectation. The puzzle continued to slide and click in her head, helped her to the right words. She surprised herself as the formalisms came to her lips. "We are here to right a wrong done with Skill, by Skilled, to Skilled. This is not a matter for the authorities, nor is it a matter for

the ultimate judge of our spirits. This is a matter for Skill. And so we are here to perform a great work of Skill."

One by one, she made eye contact around the circle. The other four of her Five stared back, eyes clear in the gathering dark, gleaming in the light of the single candle.

Sally studied the puzzle in her head for a moment longer, then laid out her plan. "We are here so that the Necromancer can open the way to the Other Side. The Crafter will make forms for the Seeker and the Finder to travel there without the death of our bodies. The Projective will propel those forms across the opened way to the Other Side. Once there, we will release a deceased Necromancer who is under compulsion, and Bring her to Vivimancy. As a Vivimancer she shall reach into This Side and compel her tormentors to lay aside their plots and snares. This is our great work of Skill, to remedy a greater misuse of Skill."

Petra reached into her small satchel and removed a block of modeling clay. She looked at Sally and Germaine, her expression mild. "Very well, Sally. Gavin and Robert will take counsel together on the best opening of the way to the Other Side. From you and Germaine, I need a lock of hair and a drop of blood." She began to roll the clay between her fingers, then added without looking back up, "I hope we will eventually learn the story behind all this."

"But of course," Sally said as she caught Petra's small smile.

Germaine reached over, stroked Sally's hair. "May I?" Sally glanced at Germaine, who held a small pair of silver scissors twinkling in the candlelight, matching the twinkle in the other woman's eye.

Sally had begun to see almost purely with her Color sense. Gavin had said it was the only way to see on the Other Side, and that they should quickly find the habit. After years of fearful avoidance, Sally was amazed at how easy and comfortable it seemed.

They were on their third candle. In Color, it glowed red and green, the Colors of heat and life. The entire church around them had a purple glow, the Color of old magic and contented souls. Ripples of paleness ran through the purple, the simple self-awareness of the building layered into place from generations of worship, fervor, and belief.

"Never seen a church so alive," Petra remarked over her working fingers. "Been in European cathedrals with less power."

"A century of gospel choir will do that." Germaine spoke with obvious effort. Her voice was distant from Sally, for all that they sat with arms and thighs touching. Perhaps it was Sally herself who was distant. Her thoughts echoed in her own head, immersed in Color, while her Skill's puzzle throbbed gently in time with her breath.

Gavin and Robert sat on each side of Petra, their Colors shot with the white and black of death and the foaming blue of transitions.

Gavin shifted, a ripple in his Color preceding his words. "The door to the Other Side is ready. While you are there, be wary. And do not leave the protection of the church. The further you go from us, the more difficult it will be to retrieve you."

Robert's gentle voice warmed her ears. "When I send the forms to car-

ry you to the Other Side, something may be returned to us. Be forewarned."

"I am ready," Petra announced into the silence that followed Robert's statement.

Sally could feel herself slip into Colors, the puzzle in her head softening with her dissipating sense of self. She heard Germaine's voice, very distant, whispering words of love. As Petra's fingers plucked Sally's Colors to draw her into the form, Sally's puzzle sharpened again, providing a jerky vision. In the focus of her mind, she saw an automobile, moving fast, passengers Colored with frustration, anger, and violent intent.

"Be wary, Aristides sends his men for us." From her distant place in the clay between Petra's fingers, Sally couldn't tell if she had spoken aloud.

"Hush, sweet Sally," soothed Petra. "It doesn't matter now. You have a job to do."

As she slipped into Robert's kind hands for the sending, Sally realized her Five had not heeded her words. Guns kill faster than Skill, she thought, having Found a distant matte-black shotgun on its way to her body.

"Germaine." Sally felt ordinary.

The grip on her arm closed a bit tighter. "Here."

Sally tried to open her eyes, found that indeed she could see only with Color. "Gavin was right."

"Damnedest Colors I ever saw."

They sat in the old church, in the circle of the Five. Everything was shades of gray, darkening around the edges of vision like the frames of a very old movie.

"It's like watching *King Kong*," Sally whispered to Germaine.

"Or *Battleship Potemkin*."

The other three of their Five were the only colors within the Colors—dark shapes with a faint red glow at the core, like a banked fire. Sally stood from her lotus seat, looked down to see her own body exude the same muted glow. Germaine appeared translucent, absent of color, as she rose out of her glowing body. The world around them was absolutely devoid of sound other than their own voices. There was no scent at all.

"You have already brought us further than I ever thought to go." Germaine nodded briefly to Sally, a measure of respect that thrilled Sally's heart. "Now, how do you propose find Maman on This Side?"

"She will be close to you." The puzzle in Sally's head was faint, quiet, but still with her. It agreed.

Hands clasped, they stepped out of the circle of their Five and passed through the door of the church to the porch outside.

The field of dark flowers around the church was filled with old cars, spoke wheels and canvas tops glimmering in the inverse light of a dark moon. Men and women dressed in the style of generations past lounged against the cars and talked quietly to one another. Other than the faint voices, the entire world shared the preternatural quiet of the church. A large old black woman in a flowered shirtwaist dress stood in front of the church door watching them as they emerged.

"Children, you all do not belong here."

"I'm sorry, ma'am." Sally used her best Sunday voice. "We have work that brings us."

"T'ain't your time yet." The old woman's smile was boundlessly sad. "And you'd best not step off that porch unless you want your time to come ahead in a righteous hurry."

Germaine glanced around the churchyard, then back at the old woman. "Why are you still here, ma'am?"

The woman waved at the automobiles behind her. "We're here to help others what need it. Volunteers, to assist as guides for them newly come." She chuckled. "We ain't among the angry ones, nor those so muddled they don't know they passed on. And there's plenty enough folks with sense left after crossing over to come first to a church for help."

"It's good that some have the heart to still give," said Sally. "Bless you and your work, ma'am."

"Thank you, child," the old woman said, bowing her head. "And blessings on you as well."

"Thank you," said Sally. "Ma'am, in your watching here, have you seen a Haitian woman, seeking her daughter?"

The old woman frowned. "Don't reckon I know no Haitians."

"She died in Queens," said Germaine. "New York. But she follows me in my dreams."

"Oh, child. She don't know enough to let go. I'm so sorry."

Germaine shook her head. "Maman was a Necromancer. She knows better."

The old woman nodded. "I figure you for Skilled, too. Don't hardly ever get no one from That Side here, unless they're mighty lost or a powerful dream walker."

"You were Skilled?" asked Sally.

"My name is Gran Rosie, Brought by Verta Mae of the line of Tituba, with the Skill of Preparation."

"Witch and slave line both," said Germaine. "That's a powerful Bringing, ma'am."

Gran Rosie's sad smile slipped onto her face again. "That's why I'm here. So why are you here, then? No one crosses over with breath in their body just to settle dream ghosts, not even for their momma."

"A Skilled in New York has abused Maman, forced her to his service," Germaine replied. "We are here to free her."

The old woman stepped back, growing smaller as she did so, as if falling down a tunnel. "Lord preserve us. There's servitude enough in life and here you're on the trail of slavers of the dead. You all watch your step, girls." She vanished into a thin dot.

Sally looked around at the field of dark flowers. The old cars, the men and women, were all gone. She could feel the approaching shotgun.

"Maman?" said Germaine.

A thin, small Caribbean woman dressed in black-on-gray gingham check shuffled through the dark flowers toward the porch. At her own back, Sally could feel warmth from the door of the church, the life of the Five inside. She and Germaine were still within their protection. The

newcomer was old and wrinkled, with a silver-rimmed tooth in her crazed smile, trailing a thin black thread behind her.

"Louise-Germaine." Maman spoke crisp English with a neutral accent. "You have not listened to me."

"Maman." Sally could hear the desperation in Germaine's voice, even among the accents of her childhood. "*Qu'est-ce que c'est que vous faites?*"

"Louise-Germaine, you must listen to me."

"*Non, tu es morte, Maman.*" Germaine kept trying, her voice desperate. "*Ecoutez-moi, tu es morte. Tu jamais n'as bien parlé anglais, pas jamais, Maman.*"

Maman stepped forward, shaking her head, her gait stiff and her face as unemotional as any mask. Even Sally could tell something was wrong with Maman, more wrong than simply being dead.

Germaine dropped her grip on Sally's arm. Sally looked down at Germaine's hand. The silver scissors hung loose and dull. Sally twisted them from Germaine's grasp, slipping her fingers through the loops, and opened them to cut. Or stab.

"Louise-Germaine." Maman acted as if Germaine had never spoken at all. "Listen."

Sally watched the black thread stretching away from Maman, hanging low across the dark flowers like a drifting spider web, and on down the ghost of Montopolis Drive to disappear into the shadows of the inverse moonlight. Could Aristides' hold on Maman be that literal? Sally set one foot off the porch to try to step around Maman, but felt the puzzle twist in her head, tugging her backward.

Her Skill was fighting her decision. The protection of the church, of her Five, was too strong to abandon. Her left foot, placed down on the ground among the dark flowers, was suddenly corpse cold.

She really should not leave the church, Sally thought. She kept her other foot on the porch.

Maman raised a hand toward Germaine. Sally saw more threads twined between Maman's fingers, like cobwebs clinging to an old rake. Those threads twisted, narrow, blind worms that struggled toward Germaine, who stood facing Maman as a helpless child, mouthing silent words of prayer or pleading.

Sally couldn't reach the thread without stepping away, couldn't free Germaine and Maman without leaving the safety of the porch, and probably her own life.

Germaine had rescued Sally from years of misery, brought her back to face Petra and Gavin and her old ghosts. Sally had wasted so much of her time, her gift, before getting back her Skill—recovered only because of Germaine.

She owed Germaine more than she could ever repay. Sally couldn't let Germaine end this way. She didn't know how much she truly loved the other woman, but her love was sufficient to gift Germaine with her protection.

Ignoring the puzzle in her head, accepting the cold pain from the ground below, Sally stepped off the safety of the porch to walk behind Maman. She brought the silver scissors down and cut the black thread that spun out of Maman's back.

Maman shrieked as if she had been thrown into a fire, Germaine screamed, and, very distantly, Gavin yelled, "Bloody hell, we're not losing you again!"

Then the dark flowers spun together and dragged her down into the cold, hard ground.

Sally sat on the running board of a 1935 Cadillac Dual Cowl Phaeton, leaning against the spare tire cover. She felt very cold. She adjusted her bonnet. Her spit curls were slipping loose. The dilapidated church seemed unattainably far away, a lifetime's journey across the sandy driveway. A handsome young black man with natty leather suspenders and a canvas motoring cap leaned against another car a few feet away.

"Gran Rosie asked me to check up on you," he said in a very polite voice. "Seems she was quite taken with you. Are you sure you should be here, ma'am?"

"I'm here to help others what need it." Her prim words echoed somewhere else.

His smile was even more handsome, pale teeth gleaming in the vast gray darkness surrounding them. "Ain't we all? But pretty white girls like you don't usually find their way down to a colored folks church."

"I am Color blind." Sally wondered at the emphasis in her own voice.

"Can't hardly be that," the young man said amiably. "You'd see nothin' at all here, otherwise."

Faint shouts sounded from the distant ramshackle church.

"Sounds like someone's fightin' hard not to come over to This Side." The young man chuckled. "Might ought to have a couple of us strapping lads go help out the side of the angels. You gonna be all right here, missy?"

He touched his cap without waiting for an answer and sauntered across the dark flowers, passing between the old cars. He vanished into a distance much farther than her sight suggested was possible.

Sally adjusted her bonnet again. She didn't think the young man was right about what was happening at the church door. Behind her, tires hissed on sand. Surprised at the sound in the silence, Sally stood to look across the hood of the car on which she had been leaning.

A modern automobile—a new Cadillac, a dark, low wedge with wide black tires—pulled into the sandy drive of the old church. It passed through a 1947 Chrysler Windsor Business Coupe before lurching to a halt. The new Cadillac glowed a faint red, with coruscations of black and white.

Real Colors, thought Sally. Life and death travel together in that car like twins in a formaldehyde bottle. She wanted to step back into the safety of the church-watching dead, wanted to sit in the passenger seat of one of the beautiful old cars and drive off to glory in the inverse moonlight.

The world, her real life, came rushing back to her. Sally wondered if this was how it had been for Ben, drowning inside the van. Germaine's Maman, what had she seen when she died?

The matte-black shotgun got out of the Cadillac, solid and real to her in the faint hands of a man with the Colors of the Skilled. There were powerful Necromancers in that car, Sally thought, who broadcast their very existence to the Other Side while just drawing breath.

Such a waste of Skill.

Skill, she thought. The puzzle clicked again in her head. Sally pulled at her bonnet, plucked at her antique dress, realizing she already counted herself among the dead. But these were slavers of the dead, the men she was here to stop. She could see the shotgun because she had Found it, and it was here on the Other Side to stop her Five.

Sally didn't know if she could be killed here, but she was certain she could suffer, be cut away forever from her body in pain and fear. Sally would have bet a kidney that the shotgun was loaded with some Skill-wrought shot, perhaps silver and myrrh and old blood mixed to reach the Other Side and tear apart the unlucky dead. Or the unlucky living, as the case might be.

If she yet lived.

Once the shotgun was carried into the church, her Five would be in deadly danger. Silver shot would kill living Skilled just as well as buck-shot. Germaine's Maman would be trapped again, Skilled would die now and later, and Aristides' ambitions would march onward, to some bitter end—a tyranny of the Skilled, perhaps.

Find, she thought, even if you *are* dead, you are still a Finder. Find a way to take their Skilled gun away. Then these would be just angry men that her Five could fight, if not on equal terms, at least with a chance of success.

Sally walked toward the shadowed men assembling in front of the new Cadillac. She sharpened her Color focus, tried to pick out the Skills of the others. There were five of them, and she assumed that at least one was a Venator, the huntsman who was searching for her Five.

Around her, the old cars faded away. She heard shouting at the distant church door. That was Germaine's problem, Germaine and the rest of Sally's Five. Sally knew she wouldn't ever find her way back to the church now, but she could save the rest of her Five from her fate.

She had their Five now—two Necromancers, a Venator, a Finder, and the crisp yellow lines of an Advocate. She wondered about the Advocate, then remembered Germaine had mentioned an Advocate in her Bringing Five. Was he here to finger Germaine? Either that or to handle problems with local law enforcement.

Both, likely, she realized.

"Away," said one of the shadowed men, the living men, as she approached. His voice echoed hollow on the Other Side. "You have no business with us."

You bet your ass I do, Necromancer, thought Sally. The Venator was the one who flickered with the Colors of life, violence, and speed. Could she Find something to use against them?

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The shotgun swung in Sally's direction, not quite aimed at her yet. "Away, departed," repeated the Necromancer. "This does not concern you." The shotgun fired the Skill-wrought shot into the Other Side, caught Sally in the gut and spun her around. She collapsed onto her back in the dark flowers, a deep chill blooming through the core of her body. She had moved too slowly, waited too long to take action.

What would happen now that she *had* been killed here, Sally wondered? She stared up at the blank sky, then turned her head to see Aristides' shadow men stalking through the flowers toward the church door. Sally imagined the little red-and-blue blossoms crushed beneath their thousand-dollar New York shoes. Like they had crushed her.

Then the handsome young black man reached down, grabbed her hand. "Gran Rosie said you might could use some more help." He pulled Sally to her feet.

She felt her body sag, as if she had bled to death all at once. She seemed in danger of folding forever to the ground. The young man steadied her elbow. "Thank you," Sally whispered.

"What is it you want to do now, missy?" The young man's voice was both kind and careful. Sally noticed she had been demoted from ma'am to missy. It must be the blood loss. "I do believe time is running out," he added.

She had to stop Aristides' men before they caught up with Maman, Germaine, and the rest of the Five. Then Sally knew that the doors of the car were open, the keys in the ignition, knew it by Skill as surely as she knew her name. These men were so confident in their strength and hurried in their purpose that they didn't stop for little details.

Car keys, Sally thought. Local law was always interested in automotive misbehavior. The rented Cadillac was so overloaded with Necromantic Skill traces and the violence of their intent that it had projected into the Other Side, while also still firmly anchored in the living world. Like the shotgun that had taken her life.

She didn't need the puzzle in her head now—her next actions were plain there. "I can never find my own damned car keys," she told the young man. Sally coughed as blood dripped from the corners of her mouth. "But I can find theirs. Can you start that car?"

"No, missy." The young man shook his head. "I can't reach out to That Side no more. But I reckon I could help you get over there if we hurried."

He carried her to the car, in fact. Her legs were numb, and the coldness in her torso had turned to fire. Sally could no longer feel herself breathing, not even the false habit of breathing she had brought here to the Other Side. "I'd be dead if I was alive," she mumbled.

"I reckon so, missy." The young man laid her in the driver's seat of the Cadillac. He reached down to place her foot on the accelerator. "Excuse my familiarity, missy. Don't see as how you'll need the brake." He smiled up at her from the foot well, touched his cap, and stepped back from the car.

Sally fingered the keys in the ignition, the plastic tab from the rental car agency dangling. Somehow the young man had placed her in the car within a slice of time so small the shadowed men had barely moved any further toward the church.

It would have been too easy if one of them had been Aristides, she thought. Much too easy.

Fingers on the key, she closed her eyes and thought of Ben. She couldn't remember his face, only Germaine's. Germaine smiled in her heart, brown eyes and brown skin the same shade as the handsome young man. Sally was glad she had stepped from the porch, glad she had done something worthy as the last moments of her life became the first moments of her death.

Sally opened her eyes, and, with one forced motion, turned the ignition and stamped on the accelerator. She felt the car come to life. The shadowed men paused and turned. Sally's ghostly fingers tugged on the shifter, and the car lurched forward over the dark flowers.

The shotgun, the only real thing on This Side, raised in the inverse moonlight, and fired into the glass in front of her as she ran down three of the shadowed men with the Cadillac.

The wall of the church filled her vision as a body tumbled through the smashed windshield. Sally threw her hands up, trying to protect her face, only to find a sodden mess. The Skill-wrought shot had done its damage. Still seeing Colors, Sally tugged at the door handle. She would be damned if she would just lay down and die inside this evil automobile.

The door popped open suddenly. Maman caught Sally as she fell out of the car. "*Ma petite fille*," Maman whispered, "*vous avez fait tellement très bien*. So well, *cherie*, you have done so well." The old woman picked up Sally as if she was no more than a child, and carried her toward the church door. Thunder echoed from inside, and a sharp scream.

"Germaine?" Sally asked.

Maman smiled as they stepped onto the porch and through the open door. She kissed Sally's forehead, then Sally felt herself pulled like taffy. One part of her sought to begin the long journey onward through the Other Side. Another part of her was called back into her Form by Robert, gentle as a babe plucked untimely from its mother's womb.

"Girl, you've got to wake up!" The voice was urgent.

Warm dampness coated Sally's cheeks, but she wasn't crying. Sally never cried.

"Let her be." A twitty voice, tense and tired. "I'd know if she were dead, believe me."

"Gavin?" Sally asked, opening her eyes. Had they all died?

The gray felt headliner of a van filled her vision. Her head was pillowed on Germaine's lap. Gavin leaned over the back of the next seat forward. Sally felt warm, so much warmer than she had before.

Germaine's voice rose to a pained shriek. "You come back from a bad trip to the Other Side, and first thing you ask for *that* little runt?" She leaned over to hug Sally, their bodies pressed together lengthwise as Sally's nose filled with the scent of tired Germaine, sweat, and old church smells. Germaine whispered to her in a voice meant just for the two of them. "Thank you for my life, girl. And for setting Maman's death to rights."

Sally struggled to sit up, quickly stopped as her vision blacked in and out. "Where are we?"

"Getting away from south Austin as fast as our little wheels can carry us, for one," said Germaine. "Texas state bar card or no, I couldn't have talked us out of a wrecked car and five dead guys. I'm just an everyday attorney. Joseph the Advocate, maybe he could have, but Robert broke Joseph's neck for him." She glanced toward the front of the van. "Moved fast and hard for an old guy."

"Maman?"

Germaine smiled. "Off practicing her Vivimancy on Aristides as we speak. You cut the binding on her, then killed his two best Necromancers with their car. That was what needed doing."

"So we succeeded. We're away from there." Sally mused at her hands, at her breathing, at the mixed scents of vinyl seats, weary people, and cold night air. Everything around her was a miracle. "And I'm alive."

"When that car came through the wall," said Petra, "carrying a few bodies, we figured you were helping from the Other Side."

"That was when I pulled your forms back." Robert's voice, unseen from the front. "Germaine was simple, but you were very, very difficult. There was a lot of unfocused Skill energy bleeding from the men you killed. I used it to reach you. Then Gavin and I took care of a couple of rude boys."

"The old man's having you on, Sally." Gavin flashed his grin full of bad teeth. "Pulling you back was bloody dangerous. You'd gone over too far. It was like picking a grain of salt off a beach under a running tide, but Robert did a right handsome job. He could have lost himself on the Other Side reaching so far."

Germaine smiled at Sally, gripping her fingers. Sally pushed her body a little closer to Germaine. The warm pressure of their touch worked past the phantom pain from the killing wounds.

The puzzle in her head slid. "We're going to Lockhart, right?"

"Yeah," said Petra from the front.

The puzzle, her Skill, showed her what she wanted to know. "Germaine's car is in the parking lot of Methodist Golden Age Home at the south end of town, third space over from the dumpster."

"Yes, dear, we know, you can Find things." Germaine's voice brimmed with exaggerated tolerance.

Sally closed her eyes. She desperately needed to sleep. Something bothered her, something mixed in her recollections of the evening. "Robert. Did something come through when you sent us? Was it dangerous?"

"Nothing when you went over." His voice still soothed her. "But this came back with you."

Gavin passed back a flat canvas motoring cap from more than half a century earlier.

Sally clutched it, looking up at Germaine. "A reminder from Gran Rosie and her family."

"Hush, child." Germaine stroked Sally's hair. "You're not making any sense."

The Five's rented van rolled down Highway 183 toward Lockhart, through fields of bright flowers under a silver moon, making all the sense in the world. ○

BETTING ON EUREKA

Geoffrey A. Landis

Geoffrey Landis spent most of last year in Pasadena, working on the science team for the Mars Exploration Rover, where he shepherded the rovers around on Mars and took pictures of rocks, soil, and sunsets. His latest work has been a proposal for flying an aircraft in the atmosphere of Venus to search for microbial life. In his spare time, Geoff designs solar cells and sometimes writes science fiction.

Eureka.

Across the big black sky, everybody knew about the Eureka asteroid. Eureka was a legend, a dream, a paradox; it was a fabled lost treasure hidden among a billion rocks in the sky.

In the gossip of the rock-rats and fuel-stop jocks, many claimed that Eureka was a hoax. The ore sample had to be an elaborate fake, because it was well known that asteroids have no ore veins. An ore vein is deposited by water, and for four billion years, the asteroids had never been wet. But yet there it was, an angular chunk of rock the size of a suit-helmet. The sample had one flat surface, still showing the saw marks where it had been cut free of its parent rock. And embedded in that cutaway, like a rope of twisted metal, was a streak of quartz glistening with gold and copper and scandium, precious scandium, riches without price.

But the parent body, ah, the parent body, the treasure load of man's greed and desire, where was it? Only two people had ever seen it; only two had ever mapped its eccentric orbit, and only one of them had come back, dying of radiation poisoning, delirious with the last stutterings of dying neurons. He had been dying, John Jason Goya, covered in filth and vomit that he had been too weak to clean up, riding in a broken spaceship from who-knew-where, clutching a stone and gibbering that it had been

cut from a fifty million-ton rock, a rock threaded through and through with the same rich veins.

But, in that last day, the one long bleak day after John Jason Goya had arrived at High Freehold in the dilapidated *Queen of Spades* and before he lapsed into the coma from which he would never recover, he refused to tell anyone where the rock had been found. A dozen prospectors searched the *Queen of Spades* from rockets to radiators and back again, tore apart the old *Queen* and searched her innards with microscopes, but all the navigation logs had been erased, the inertial navigation unit wiped, and every hint of its trajectory meticulously destroyed, lest the claim jumpers that John Jason knew were waiting might find and steal his precious rock. John Jason Goya alone had returned with the secret, and John Jason Goya had died with it.

Of his partner, Shania Montez, no trace was ever found.

Yeah, everybody knew the story. Parts of it were most likely true, parts undoubtedly exaggerated. The rock itself was on display in a museum on Earth, we heard, or it had been processed for its precious elements and the slag discarded.

The story of Eureka faded into myth, joining the many legends of the asteroid belts, the stories of ghost ships and lost lodes that had become the bait for a hundred scams. Every visitor fresh from Earth was approached by a dozen furtive con artists who, for a small price, could reveal the orbital parameters for the fabulous lode. Nobody paid attention.

The belts had plenty of stories. I'd heard that one Corwin Teron was peddling stories that he had a guaranteed-true tip on a lost lode in the outer fringe, and I paid no attention.

But now Corwin was acting rich.

2101 Adonis was an asteroid in a nearly 5:2 elliptical resonance with Earth, an orbit that took it out to brush the main belt, then inward of Venus. High-Hades was the way station built onto the asteroid. It was the port where the miners and prospectors and ore-haulers stopped to refurbish and refuel, a hub with flophouses and fixit shops and suppliers. High-Hades featured establishments for drinks and adult entertainment to service every level of asteroid mining society, from the damn-near-broke prospector looking for a stake, right up to the swank private clubs for the owners and managers of billion-SAU enterprises.

And now Corwin was drinking in the society bars.

Corwin Teron was of an intermediate age, with the grace of movement that showed he'd been in low gee for a very long time. To pay his oxy bills he hired out as skilled labor to the repair shops, but you could see he'd been a prospector; the signs of it were all over him. I knew him slightly; I'd seen him around the bars and entertainment district.

Now he was talking to financiers. And that was interesting enough for me to want to track him down.

"Corwin Teron," I said to him. He was in new clothes, with spider-silk gloves and iridescent knee-socks; not the latest new fashion, but high class enough.

"Marcos," he acknowledged, and smiled.

"Looks as if life's been good to you?" I asked.

"Pretty good," he said airily, "pretty good. How's business?"

"Not bad," I lied. Or maybe not a lie, since tottering on the edge of insolvency was pretty normal business. "Got anything you could throw my way?"

That made Corwin laugh, long and hard. "You and everyone else."

"That so?" I said. "So, what's up?"

He gave me a look, and I could see from his eyes that he was eager for an excuse to tell his story, if I gave him a chance.

Now, in the asteroids, some people pay their oxygen by finding the ores—which is a pretty tough life, as any rock rat will tell you, yeah. And some pay theirs by selling stuff to the ones prospecting. That may not make you jackpot rich, but it's a good sight more likely to keep you in oxygen. And then there are some, like me, who make our oxygen from information. Find out who's coming in with a load of what, and trade your information to somebody with enough liquidity to short the commodity. Or, just as good, find out when a lode's played out, and a crew's not bringing in a load when they promised one—and sell the infor to somebody with a few standard accounting units so you don't short your own oxygen bills. So I was more than a little interested in what Corwin Teron's secret was, and why he seemed unexpectedly flush. Infor is my stock in trade.

"Come on," I said. "I'm buying."

"You're on," he told me.

His turned out to be Irish coffee, which is pretty much the drink of capitalists and kings out in the belt, and put a notable hit into my expense fund. But it got him talking.

The Tartaros bar swung on a tether, rotating serenely a quarter of a rev per minute, giving it enough gee to serve beer in glasses instead of squeezies, but not so much that the low-gee workers would be too weak to stand. And the waitresses, yeah, the waitresses were top class.

"Eureka," Corwin said, staring out over my head at the slowly rotating stars. "Heard of it?"

"Yeah," I said. "Who hasn't?"

"I know where it is."

Eureka. I dropped a bundle of piggies on an Irish coffee, and the guy turns out to be trolling a bait only fresh-up suckers would strike at. "Yeah, I bet you do," I said, without any enthusiasm. I stirred my drink—a beer, at a fifth the cost of Corwin's Irish, but still by no means cheap—with my finger.

Corwin smiled, and it was a twisted smile, almost angry. "Sure," he said. "You heard the story, sure thing, I guess everybody has. But you ever heard my side of the story?"

I looked up. "Your side of the story?" Of course I knew the story—everybody did—and he wasn't part of it. "You don't have a side of the story."

"The hell I don't."

Well. I'd already laid out the piggies for the Irish. I'd let him tell his goddamned story.

"You know we were partners?" Corwin said. "The three of us, Johnny,

Montez, and me. We each owned a one-third share in the Bitch Queen—the *Queen of Spades*, sure, that's what we called her, the Bitch Queen, because she was the bitch who ruled our lives. We were looking for the big strike, sure thing we were, us and half a hundred other hungry prospectors working the fringe, and we weren't finding it. A couple of little strikes, enough to pay a little toward the mortgage, but we weren't breaking even, and every trip we were getting a little more in the hole.

"But we had some good times together, you know how it is? Let me tell you, we were buddies, nothing more than that, can you believe it? Two guys, one gal, and we were the best friends in the world, sure, prospecting partners, one for all and all for one, all that, friends and partners and nothing more.

"And, damn, I had to go blow it all by falling in love. Damn, that was stupid, but how could I help it? Seeing her every day, floating with her hair in all directions like dandelion fluff; breathing in her used oxygen, all saturated with her animal scent; feeling the radiation of her body heat when we're working the radar side by side, millimeters away from each other.

"There was just no seeing straight; I was floating inverted, but I kept my com shut, knew that if I made a move, there in that cramped bubble of the *Queen of Spades*, it would never be nothing but trouble. And me? Hell, I was in debt to the eyeballs, the only thing I owned was my share of the Bitch Queen, and that was mortgaged so heavily that I couldn't really say I owned that, either. I couldn't put two liquid piggies together if I had to. We were looking for that big strike, and we needed it. By damn, we needed it.

"We'd harpooned an E-six with our tether and used the momentum to swing the *Queen* around and whip us out of the ecliptic a bit, snooping around a cluster of E-five rocks that we thought just might be promising. Now, the little ant probes prospect by just scattering a handful of Doppler dummies past, and measuring the gravitational field. That's enough to give you average composition, and see if there are any big mascon anomalies, but to seriously prospect, well, that takes a rendezvous and a drill. That's what humans are for, that's how we can hope to have an edge over the ants, knowing which rocks to stop for and where to drill. It's an art, more intuition than science, and it's a dying art, too. Used to be a thousand prospectors, out in the main belt. Maybe ten thousand. Not so many now, and we work the fringe. Won't be too long now and the last of us will be gone, us human prospectors, and it will be nothing but robots, the ants and spiders and the worm-bots.

"Anyway, there we were, way out on the high fringe. We'd scoped out this cluster, looked good—but hell, you know, they always look good. So we drilled the heck out of those rocks, and came up with—nothing. We would have settled for volatiles, nitrogen, a little methane; hell, we would have been happy even with nickel. We got crap: olivine, pyroxene—not a trace of hydration, nothing worth a SAU.

"We were way out of plane, and out of fuel, and we were coming back broke.

"It takes a lot of fat little piggies to recondition a ship, fuel it up and fix

it up to take it out prospecting. When we got back to High-Hades, Johnny Goya and Shania Montez went out to find low-bid contractors to refurbish us, and I was supposed to find us a good deal on xenon for fuel. So, shit, I shouldn't have done what I did.

"We keep our ears open, out there—what else is there to do, between rocks?—and I'd been listening in on some suit-to-ship chatter, prospectors running a ship named *Lucky Lady Leela*, registered out of Venezuela. From what I was hearing, sounded like the Lady had found an old cometary core, lots of nitrogen and carbon and phosphorus, and once they found it they shut up about it, which sure sounded like a sweet sweet lode to me. So, the moment we got back to High-Hades I went to the credit broker, and mortgaged what little equity I had left in the Bitch Queen on short-term demand notes. I got myself about twenty thousand standard accounting units from my share of the Bitch, and I took those twenty thousand SAUs and put those piggies into phosphorus, selling short, leveraged twenty to one. If I'd been right—ah, I could have paid my notes and bought the Bitch Queen outright; I would have gone right up to Montez and told her, you and me, we're rich, we can cut Johnny out—you and me, babe, we can tour the asteroids together.

"But I was wrong about that other crew. They'd found what they thought was a cometary core, sure thing, and the spectrum looked good, but when they drilled, there was nothing there—they'd been fooled by a patina, and *Lucky Lady Leela* came back broke as we were. The rocks are cruel, and when the margin call came, I was broke.

"I made it worse, I reckon, by going to Shania and—without two piggies to my name, mind—telling her that I was hopelessly in love with her, oh, and by the way I'd lost all my money and sold my share of the ship. She kicked me in the stomach and threw my stuff out after me.

"She and Johnny put together enough capital to refurbish the ship, and I'll be damned if I can figure out where they scraped up the SAUs from, but somehow they did. Although the bank now owned more than half of it, they didn't call in the mortgage, figuring the old ship wasn't worth what they had invested in it; the best move for them was to let the ship go out prospecting and hope they'd recoup their piggies on a big strike. Shania Montez and that son-of-a-bitch John Jason Goya, who used to be my best friend, went out on that last voyage as a two-man crew, and that was the last time I saw either one of them.

"Last time anybody saw them, for that matter, until Johnny came back, dying, with the mother rock of gold and scandium in his hands. They'd found their big strike, and I had nothing to do with it. Motherfucker."

Corwin shut up for a moment.

"Tough luck," I said.

Well, that was a story worth the price of a drink, and some of the details could be checked. I linked in (I'd picked the Tartaros knowing it had a good node) and queried some key details, tapping one-handed with my pad held under the table, while Corwin was staring into his drink. First thing I did was check registration data for *Queen of Spades*. It had no current registration, but I searched backward until I found it. It had been registered out of Zimbabwe, although I very much doubted that any of

the owners had ever even been to Africa. Zimbabwe had favorable laws for ship registration, most particularly favorable in that they required little in the way of inspection and nothing in the way of fees, and assessed no tax on ships that made no profit. They did keep ownership records, though, and scrolling through, I saw that Corwin Teron had indeed once been a part-owner of the *Queen of Spades*; he'd sold his share to the Second Proserpine Credit Union & Oxygen Bank, the mortgage holder on the ship, a week and a day before she went out on her last voyage.

"Shit," I said.

Gold, copper, and scandium, I thought. Time to do some research on Eureka.

The story, when I looked into it, wasn't so simple. A lot of the rock rats had dissected the evidence—what else did they have to do, coasting through the long dark, waiting for a lucky rock to pass by? They picked apart a thousand cryptic clues in the fragmented records of Johnny Montez's delirious ravings. There were a hundred versions of the details, but the flow of the story that they finally put together was more or less like this.

Montez and Goya had gone out prospecting. Their outward trajectory was known, but then they took a tether-slingshot and used it to rebound off a passing rock, one too small to have a name, and from there the trajectory was only guesswork.

They were tricky pilots, Montez and Goya. Successful prospecting required being able to rendezvous rocks that nobody else was looking at. Goya knew the trick to harpoon a rock with a tether, and use it to swing the *Queen of Spades* around like a whip, vectoring into odd, eccentric orbits. It was a delicate task, and put uncomfortable stress on a ship, but when they did it, they could reach rocks on the wide fringe, eccentric rocks too costly in delta-V for the automated ant swarms to find worthwhile.

They had been out for almost a year, approximately, when they'd hit Eureka. A year's a long time to be locked up in a cabin with somebody. Before that voyage, it had always been three of them, always a third person to break the pattern of one on one in the ship. Were they sleeping together? Probably, I decided. Almost certainly they were; two of them together, it would have been hard to believe that they weren't. But after a year they were maybe getting to be mighty sick of each other.

And then the big strike.

They found the rock, that gold-laced hit they'd been dreaming of during long decades of prospecting. An asteroid embedded with a crystal of quartz, and in the quartz, the glimmer of metals, glimmers the color of an asteroid prospector's dreams. Did they celebrate? No, they did not. They were too focussed on the task. They prospected. They measured. They took a sample. And John Goya left Shania Montez behind on the asteroid.

For whatever reason, he'd decided at the end that he didn't want to share. Did he hate her by then? Or was he just greedy for the whole pot, not a half? It didn't really matter. After he fully understood what they'd found, he went back to the *Queen of Spades*, leaving her on the rock, and took off.

Now, you have to know that a prospector ship doesn't take off fast. The ion drive is a slow push, not even a centimeter per second per second. Overall, that little bit of push builds up, but prospector ships don't have any kind of jackrabbit start. From Shania Montez's point of view it just hovered there in the sky, barely moving, lazy and arrogant.

She called him, I am certain she did, on her tiny little suit radio, and he had ignored her, and sooner or later she realized it wasn't an oversight or an accident or a cruel cruel joke, and he wasn't planning on coming back for her.

Even if her radio could reach out far enough to call someone else for help, who else could she call? She had, what, maybe five hours of oxy? Even if by wild chance there had been a directional high-gain pointed her direction to hear a distress call, it would take months for any ship to get there.

She couldn't get rescue, but she could get revenge.

She knew *Queen of Spades* inside and out, Shania Montez did, and she knew its weakness. She had with her the prospecting radar that they used to make depth profiles of the rock. John Goya must have taken the chance that she wouldn't be able to turn it into a communications link in the five hours she had left, and he'd been right about that. Instead, she focussed the microwave beam on the ship. Specifically, she targeted the return loop of the radiator heat pipe.

Space is full of radiation. To keep the passengers in the ship safe, like any other ship that carried fragile humans, the *Queen of Spades* had a coil of superconducting wire that wrapped around it and generated a large magnetic field. The magnetic field curves the path of charged particles, just enough to keep the radiation from reaching the habitat bubble.

Shania Montez knew just where to aim, and it didn't take much heating at all for her to overheat the superconductor. The moment the superconductor turned normal, the currents in it blew the coil, and the radiation protection was gone forever.

Goya should have gotten a warning telltale from the system monitor, of course, but it was long since broken, and Shania knew it. That's the problem with a spaceship mortgaged from stem to stern; the money for safety repairs is the first thing to go. There wasn't really any way to repair the damage anyway, the remains of the coil was a rapidly-expanding mist of fine molten droplets.

Queen of Spades was well out of the plane of the ecliptic—just how far, nobody knows, but it was a long trip back, over a year, with a couple of lateral delta-V maneuvers as Johnny did forced-flybys of convenient asteroids, grappling them with the ship's tether and exchanging a bit of momentum to alter his course. The radiation of space, along with the radiation from his own unshielded reactor, did its terrible slow work on John Jason Goya. By the time he realized how he'd been vulnerable, it was far, far too late. The *Queen of Spades* came back carrying a chunk of rock, a pilot dying of radiation poisoning—and a mystery.

That answered some of my questions, but the big one remained a mystery. Corwin Teron hadn't been there.

So why did he say he knew where the lode was?

When *Queen of Spades* had returned to Freehold, prospector crews had gone over that ship with a fine-toothed comb, with microscopes, with every probe you or I could think of, and a bunch more we couldn't. Nobody found a thing. It had been wiped clean.

"Sure thing they did, but nobody else knew that ship like I did," Corwin Teron said. "I lived in their pockets, I did, and they lived in mine. I knew how they thought. I knew how they operated."

"You say?" I said.

"Johnny was hinky about engine hours," he said. "Always kept a meticulous record of every second that the engine was firing. Now, he wiped it, of course. I'm sure he thought he'd erased all the traces, but I got to thinking, what about scratchpad? The way he calculated engine hours, he logged when the engine was on, when it was off, and subtracted the two and logged the difference as engine hours. That was done in flash scratchpad, I thought, and I sort of got wondering if the scratchpad memory got wiped, too, or if he'd forgotten about that. I was right, he hadn't bothered wiping flash. So I know every engine firing, when and how long."

"Shit," I said. But then I thought about it. They'd taken that ship apart. For sure they hadn't neglected the computer, or anything that obvious. "You'd better give me a better lie than that. They had looked at scratchpad."

"Sure thing," he said. "But they wouldn't know what it meant. They didn't live with Johnny and Shania; I did. It was just random numbers to them."

Could you reconstruct a trajectory from just engine firing times, I wondered? "Sounds pretty sketchy, I'd say."

He shrugged. "Doesn't matter to me. I'm just telling you the story, believe me or don't, doesn't make a dirt speck of difference to me." He was silent for a few moments, and then said, "Not just that. A lot of things, little stuff that wouldn't make any sense to anybody else. Pencil marks Shania made. She'd check the ship position, triangulating on asteroids, and taking notes in pencil on the rim of a porthole, little fragments of calculations. I knew which asteroids she always sighted on, and I've seen a hundred times just how she calculated the tether stretch. Nothing significant in itself, nothing anybody else would notice, but I could feel the way they thought. I could look at that ship and I was there, I knew how they flew, I knew which asteroids they'd triangulate on and which way they'd jump."

"But the ship was in a junkyard in Freehold, and I was a down-and-out-er in High-Hades, without a SAU to my name, scrambling for my day's oxy. It took me three damn years to work my way out of debt and get a mechanic's slot on a slow-orbit transport to Freehold. And by then the hulk had been sent out to a junkyard orbiting Mars, and it took me a few more years to track it down and find what I needed."

Maybe it made sense, I thought. Just maybe.

"So you're selling the asteroid," I said. "You, and a hundred other down-and-out rock bums who are looking for a little scratch. I've heard that story before. Why the hell should I bite?"

"Selling?" he said, and laughed. "Selling, to the likes of you? You're skewed. Don't kid yourself, Marcos, you got delusions of grandeur. That's

a billion SAU rock you're talking about here, and you don't have the scratch. No, I don't need nothing from you. Thanks for the drink."

Everybody needs something, I thought. But it was a pretty elaborate story, just to cadge an expensive drink. Still, I've paid more and gotten less other times. I nodded. "Great story," I said. "Thanks for the company." I got up and looked around to settle the tab.

Corwin flagged a waitress first. She was wearing that skintight iridescent soap-bubble stuff, a recent fashion that reveals and conceals the figure in ripples of colors, and Corwin let his eyes linger. I could tell the waitress didn't exactly appreciate his gaze, but her costume was a good part of why the place could charge the pigs they charged, so she let him look. "You're drinking that frontier foam, Marcos?" he said, not taking his eyes off the waitress. "You know that's little more than colored water; tastes like recycled piss. You should try an Irish coffee, now that's a drink worth drinking."

"Yeah, maybe I should. Great talking with you. Call me sometime," I said.

"Sit down, I'm buying," Corwin said, and I sat. To the waitress, he said, "Two Irish, and don't skimp on the cream this time." He laid out the SAUs, along with a tip for the waitress that was substantial enough to make me (and her) look twice. She gave him a second look, smiled at what she saw, and disappeared.

To me, he said, "Me, sell Eureka? Sure thing. But not to the likes of you, no insult intended. I sold to somebody with real cash."

"You sold," I said. "Of course you sold."

"Of course I sold. I sold the secret a month ago, to a consortium of investors with enough cash to put together an expedition. They're on the way now.

"In another month, they will be back with enough ore to sink Saturn itself.

"So drinks are on me, buddy, drinks are on me. Keep your piggies to yourself, because I am about to be one filthy stinking rich rat."

I should have invested, I suppose. I could have liquidated everything I had and used it all to short-sell scandium, gold, and copper, maybe earned a load of cash. But I would have had to have been fast, because I wasn't the only person he talked to, and within a week the options price dropped into the toilet, at least for the metals that had been assayed in the Eureka strike. A lot of piggies changed hands, and none of them landed into mine.

But I wasn't investing. I trade in information, and I passed the chatter along to some friends of mine, and they passed along a couple of pigs and thanked me for the gossip.

And Corwin Teron was suddenly in the middle of it. His story was a good one, and soon enough everybody knew it.

Anderson/Newmoon, the venture that had bought his information, wasn't the biggest mining consortium in the belt, but they were a big enough player. They were a corporation headquartered in Paraguay. Now, the Earth "headquarters" of an asteroidal mining consortium is a bit

more fiction than physical presence; I doubt that the purported headquarters would be more than a mail drop and a net relay node. The façade was a convenience to give the corporation standing to engage in contracts that would hold up as legal under Earth laws, nothing more.

But, Earth headquarters notwithstanding, Anderson/Newmoon's microgee manufacturing operation was big enough, and they moved a lot of ore. They'd checked him out, and he scanned.

Corwin was in quite a position. He was—exactly as he'd told me—filthy stinking rich, on paper, but he didn't actually have a single SAU to spend. Seventy-five million standard accounting units had been deposited into an account in his name, but there was a Stubborn Intelligence proctor on the account that wouldn't allow one SAU to be withdrawn until the expedition had returned, and the assays verified that the deposit was real. The money was there, it was his, but he couldn't actually spend it.

Which made sense, of course. The suits at Anderson/Newmoon weren't stupid. His story checked out, as far as they could verify it, but there were a lot of weasels and liars out there, and they weren't going to let him float away with their money until they saw the glitter of scandium.

The Stubborn Intelligence that proctored his money was chartered in Algeria, and the payment was technically in dinars, but of course it was guaranteed against Standard Accounting Units at a fixed exchange rate. That's common enough; the laws of the inner belt are a hodgepodge (and the outer belt even worse), since each of the entities doing business is incorporated under the laws of whichever nation had the most favorable legal system at the time, and for the most part, that meant the ones with the least legal system. That might have resulted in a lot of trade in the inner belt going on in currencies that weren't necessarily stable, but using Standard Accounting Units instead of pesos or ringgit or baht meant nobody ever had to actually deal with the inconvenience of Earth currency.

So his money was proctored, but he had credit, a lot of it, and he used it. He played the rich miner, and High-Hades saw a lot of him, in every swank dive in the port. He'd spent fifteen years living on recycled oxygen, and now he was making up for it.

The price of scandium fell, and gold and copper with it, but it didn't really matter. The scandium that had been estimated to be in Eureka was so rich that, even when it hit the lowest price in a century, everybody who'd invested in the venture would be rich, and the gold and copper would just be dessert.

Hell, he even bought me drinks. I decided I could get to the point where I'd actually like Irish coffee, if I let myself.

It was most of the month before it occurred to me how badly he'd been swindled. Seventy-five million, and a 5 percent share of profits? That was nothing, if the lode was a tenth as rich as it had been predicted. I mean, it's a fortune, but the prospector's cut should have made him a billionaire; he should have held out for forty percent, and settled for a third of the take. They'd taken advantage of him when he was down and out. He shouldn't be buying drinks in the fanciest bars in port—he should be owning the port.

And I watched him closer, I did, and realized that he wasn't rich at all. He was acting. Underneath the smiling exterior, he had a hunted, nervous look. Corwin Teron had been taken—and he knew it.

And it all came crashing down, the moment that the Newmoon ship got to the asteroid that Corwin had sworn to them was Eureka.

The asteroid he had sold to Anderson/Newmoon for seventy-five million SAUs was inspected, scanned, drilled, radared, and x-rayed. It had gotten the full treatment; there was no way Corwin was going to be able to claim they just hadn't looked hard enough. It was an ordinary chondrite. Nothing to harvest. Not even enough nickel to pay for the voyage out.

A day before the news, and you could find Corwin at any bar in High-Hades, buying drinks and making friends. A day after the news, and Corwin was hard to find indeed. It took me three days to hunt him down, but there are only so many places you can be on an asteroid port, and no real places to hide.

Corwin had a bitter smile, and an ironic laugh.

He was dead out of credit now—the first thing that the consortium had done was tickle the Stubborn Intelligence that proctored Corwin's finder's-fee money, and there was no way he would ever pry that loose. I'd heard on the street that he'd borrowed a lot of SAUs, using the finder's-fee money as collateral, and with the finder's fee about to evaporate, he was looking at a lot of debt suddenly coming due.

That had been his game all along, I realized. He'd been nothing, a down and outer, a prospector with no prospects, nothing to his name but a single good story. So he traded that story for a month's worth of living rich, floating around with piggies in his pockets and impressing everyone with outrageous tips.

Yeah, now it had caught up with him.

His debts hadn't tracked him down yet, not quite, when I saw him. He wasn't drinking in the swank bars any more, but the rock rats all knew where he was. They were buying him drinks now, and why shouldn't they? He had a hell of a story these days, and a lot of prospectors weren't terribly sorry to see a big venture get played for fools, even if it only lasted a month. Corwin was going down in flames—it was unlikely he'd ever be able to pay his next oxygen bill—but the down-and-outers and rock rates all were cheering him as he fell.

He was smiling.

"I admire your attitude," I told him. "You're out, but you certainly did run them like a player."

"They insulted me," he said, as if he hadn't a care in the world. "Did I mention that? I gave them the secret of the greatest strike in the asteroids, and they wouldn't even let me join in on the expedition. I've been prospecting since before any of them were born. No way they could tell me I didn't have the skill-set they needed. Idiots."

"Yeah, buddy," I said. "Indeed. But I guess they had the last laugh."

"Laugh?" he said, and I suddenly realized he was seriously snookered. He didn't need microgravity for the way he was floating. "Sure thing. I'm laughing. Say, I'm putting together an expedition. You got contacts? Want to invest?"

"Expedition? Yeah, sure. The only expedition you're putting together, if you have any sense, is a one-way trip to Earth." If he could drop down to where oxygen was free, it wouldn't kill him if he went bankrupt; down below, the planet itself keeps deadbeats alive. If he couldn't get a drop—well, his next oxygen bill was likely to be his last. You can get oxygen on credit—sometimes—but not with a record of burning through piggies like he had.

How much had he gone through, anyway? I was curious, and he was just drunk enough he might answer.

"So how much did you borrow, anyway?"

"'Bout ninety."

"Ninety thousand?" I whistled.

"Million."

Ninety million SAUs? But that didn't make any sense. "You borrowed ninety million oinking SAUs? On seventy-five million collateral? How the hell did you do that?"

He smiled. "Well, it started at ninety. You got to keep it moving, so nobody can see how much you don't have. Borrow a little, then home it in a blind account, then use that for collateral to buy more. It's a shell game. I used the money I borrowed to borrow a little more, and then used that to borrow more. Leveraged it out to a total of more like one-eighty."

I whistled. "When's it come due?"

He looked at his watch, a tattoo on the inside of his wrist. "'Bout an hour."

No wonder he was snookered. But I had to give him credit, he was going down in a far more flamboyant style than I'd ever imagined. "What the hell did you want with a hundred and eighty million oinkers? What in the hell could you buy?"

"Well, a lot of things, I guess. I bought some drinks for my friends. I bought a little oxygen, here and there. And a bit of—private entertainment."

"For that many piggies," I said, shaking my head, "You must have bought a hell of a lot of entertainment."

"... but mostly," he said, "I bought scandium."

"Scandium?"

He smiled, a big bright smile. "Sure. It was cheap, see."

I had that curious feeling, the one where you think you're right-side up, and then suddenly you reorient, and everything in the universe turns over and you suddenly realize you're hanging upside down and falling. "How much scandium did you buy?"

"How much? Well, how much is there? It's a pretty rare item, you know. Useful, the stuff is, but hard to find. And it was such a bargain, dropping so fast. Of course, I encouraged that a little, I guess."

"Encouraged, it? Yeah, I'd say you did. How much?"

"Well—all of it."

"All of it."

"Yep. I think I cornered the market. Anybody who went short on scandium—well, they're going to cover their position."

"They're going to have to buy it from me."

* * *

For a brief period, Corwin was theoretically worth a billion SAUs. When everybody else had been selling scandium futures, waiting for the Eureka strike to flood the market, he had been buying them up.

That was electrons, though, and never real oinkers. In the real world, the game was hold 'em, and he couldn't hold onto his corner on the market long enough to stare the other players down. He was in too much of a time bind: he had to liquidate his own position to cover his own debts. When all the options cleared, and he'd paid off on all his debts, he had only cleared a little more than a hundred million standard accounting units, spendable on any rock in the solar system.

Only a hundred million. That was a pretty enough prize, for telling a nice story about a rock that wasn't even there.

Corwin disappeared from High-Hades. There were a lot of people who didn't care to see him around. Not the law—like I said, business in orbit mostly goes by the laws of the nations that had the fewest, and he'd done his trading in markets headquartered—at least in name—in Paraguay and Malaysia. But still, on a small port it's nice to have friends, and there were too many people in High-Hades who weren't. He left an ion trail behind him before they could get organized and do something. The story you hear was that he went—on a first class ticket—off to Freehold, and from there to spend his days in a private luxury asteroid habitat that the likes of you and me would never even see from a passing transport.

That may be true, but sometimes I heard another story, one that he headed in a different direction entirely, toward the salvage yards around Mars. I heard a hint that maybe he bought an old scrap ship, the *Queen of Spades*, and he's been spending his piggies for a new engine, new life-support, new everything. Fitting her out for flight. Even renamed the ship, he did.

Renamed her *Shania*.

And now I got a message from Corwin, just an hour ago. Didn't say where he was, but he said he's getting an expedition up, a little prospecting, and if I knew any investors looking for a score, I could set them up.

He's heading for Eureka.

Or so he says. So he says. ○

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Most recently, Nisi Shawl's stories have been published online at *The Infinite Matrix*, *Lenox Avenue*, and *Aeon*. She also appeared in *Mojo: Conjure Stories*, and in both volumes of the groundbreaking *Dark Matter* anthology series that focuses on speculative fiction by people of African descent. With her friend Cynthia Ward, Nisi teaches "Writing the Other: Bridging Cultural Differences for Successful Fiction." The workshop's companion book came out from Aqueduct Press this past summer. Nisi is also the editor of the online magazine *Beyond*, which publishes Afrocentric SF written by high school students. She would like to thank Neile Graham for her help in writing this dark and disturbing tale about an undeniably . . .

CRUEL SISTAH

Nisi Shawl

“You and Neville goin out again?”

“I think so. He asked could he call me Thursday after class.”

Calliope looked down at her sister's long, straight, silky hair. It fanned out over Calliope's knees and fell almost to the floor, a black river drying up just short of its destined end. “Why don't you let me wash this for you?”

“It takes too long to dry. Just braid it up like you said, okay?”

“Your head all fulla dandruff,” Calliope lied. “And ain't you ever heard of a hair dryer? Mary Lockett lent me her portable.”

“Mama says those things bad for your hair.” Dory shifted uncomfortably on the sofa cushion laid on the hardwood floor where she sat. Dory

(short for Dorcas) was the darker-skinned of the two girls, darker by far than their mama or their daddy. "Some kinda throwback," the aunts called her.

Mama doted on Dory's hair, though, acting sometimes as if it was her own. Not too surprising, seeing how good it was. Also, a nervous breakdown eight years back had made Mama completely bald. Alopecia was the doctor's word for it, and there was no cure. So Mama made sure both her daughters took care of their crowning glories. But especially Dory.

"All right, no dryer," Calliope conceded. "We can go out in the back garden and let the sun help dry it. 'Cause in fact, I was gonna rinse it with rainwater. Save us haulin' it inside."

Daddy had installed a flexible hose on the kitchen sink. Calliope wet her sister's hair down with warm jets of water, then massaged in sweet-smelling shampoo. White suds covered the gleaming black masses, gathering out of nowhere like clouds.

Dory stretched her neck and sighed. "That feels nice."

"Nice as when Neville kisses you back there?"

"Ow!"

"Or over here?"

"OW! Callie, what you doin'?"

"Sorry. My fingers slipped. Need to trim my nails, hunh? Let's go rinse off."

Blood from the cuts on her neck and ear streaked the shampoo clouds with pink stains. Unaware of this, Dory let her sister lead her across the red-and-white linoleum to the back porch and the creaky wooden steps down to the garden. She sat on the curved cement bench by the cistern, gingerly at first. It was surprisingly warm for spring. The sun shone, standing well clear of the box elders crowding against the retaining wall at the back of the lot. A silver jet flew high overhead, bound for SeaTac. The low grumble of its engines lagged behind it, obscuring Calliope's words.

"What?"

"I said 'Quit sittin' pretty and help me move this lid.'"

The cistern's cover came off with a hollow, grating sound. A slice of water, a crescent like the waning moon, reflected the sun's brightness. Ripples of light ran up the damp stone walls. Most of the water lay in darkness, though. Cold smells seeped up from it: mud, moss. Mystery.

As children, Dory, Calliope, and their cousins had been fascinated by the cistern. Daddy and Mama had forbidden them to play there, of course, which only increased their interest. When their parents opened it to haul up water for the garden, the girls hovered close by, snatching glimpses inside.

"Goddam if that no good Byron ain't lost the bucket!" Calliope cursed the empty end of the rope she'd retrieved from her side of the cistern. It was still curled where it had been tied to the handle of the beige plastic bucket.

Byron, their fourteen-year-old cousin, liked to soak sticks and strips of wood in water to use in his craft projects. He only lived a block away, so he was always in and out of the basement workshop. "You think he took it home again?" Dory asked.

"No, I remember now I saw it downstairs, fulla some trash a his, tree branches or somethin'."

"Yeah? Well, that's all right, we don't wanna—"

"I'll go get it and wipe it out good. Wait for me behind the garage."

"Oh, but he's always so upset when you mess with his stuff!"

"It ain't his anyhow, is it?" Calliope took the porch steps two at a time. She was a heavy girl, but light on her feet. Never grew out of her baby fat. Still, she could hold her own in a fight.

The basement stairs, narrow and uneven, slowed her down a bit. Daddy had run a string from the bare-bulb fixture at their bottom, looping it along the wooden wall of the stairwell. She pulled, and the chain at its other end slithered obediently against porcelain, clicked, and snapped back. Brightness flooded the lowering floor joists.

Calliope ignored the beige bucket full of soaking willow wands. Daddy's tool bench, that's where she'd find what she wanted. Nothing too heavy, though. She had to be able to lift it. And not too sharp. She didn't want to have to clean up a whole lot of blood.

Hammer? Pipe wrench? What if Mama got home early and found Calliope carrying one of those out of the house? What would she think?

It came to her with the same sort of slide and snap that had turned the light on. Daddy was about to tear out the railroad ties in the retaining wall. They were rotten; they needed replacing. It was this week's project. The new ones were piled up at the end of the driveway.

Smiling, Calliope selected a medium-sized mallet, its handle as long as her forearm. And added a crowbar for show.

Outside, Dory wondered what was taking her sister so long. A clump of shampoo slipped down her forehead and along one eyebrow. She wiped it off, annoyed. She stood up from the weeds where she'd been waiting, then quickly knelt down again at the sound of footsteps on the paving bricks.

"Bend forward." Calliope's voice cracked. Dory began twisting her head to see why. The mallet came down hard on her right temple. It left a black dent in the suds, a hollow. She made a mewing sound, fell forward. Eyes open, but blind. Another blow, well-centered, this time, drove her face into the soft soil. One more. Then Calliope took control of herself.

"You dead," she murmured, satisfied.

A towel over her sister's head disguised the damage. Hoisting her up into a sitting position and leaning her against the garage, Calliope hunkered back to look at her and think. No one was due home within the next couple of hours. For that long, her secret would be safe. Even then she'd be all right as long as they didn't look out the kitchen windows. The retaining wall was visible from there, but if she had one of the new ties tamped in place, and the dirt filled back in . . .

A moment more she pondered. Fast-moving clouds flickered across the sun, and her skin bumped up. There was no real reason to hang back. Waiting wouldn't change what she'd done.

The first tie came down easily. Giant splinters sprung off as Calliope kicked it to one side. The second one, she had to dig the ends out, and the third was cemented in place its full length by dried clay. Ants boiled out of

the hundreds of holes that had been hidden behind it, and the phone rang.

She wasn't going to answer it. But it stopped, and started again, and she knew she'd better.

Sweat had made mud of the dirt on her hands. She cradled the pale blue princess phone against one shoulder, trying to rub the mess clean on her shirt as she listened to Mama asking what was in the refrigerator. The cord barely stretched that far. Were they out of eggs? Butter? Lunch meat? Did Calliope think there was enough cornmeal to make hush puppies? Even with Byron coming over? And what were she and Dory up to that it took them so long to answer the phone?

"Dory ain't come home yet. No, I don't know why; she ain't tole me. I was out in back, tearin' down the retaining wall."

Her mother's disapproving silence lasted two full seconds. "Why you always wanna act so mannish, Calliope?"

There wasn't any answer to that. She promised to change her clothes for supper.

Outside, ants crawled on Dory's skin.

Dory didn't feel them. She saw them, though, from far off. Far up? What was going on didn't make regular sense. Why couldn't she hear the shovel digging? Whoever was lying there on the ground in Dory's culottes with a towel over her head, it was someone else. Not her.

She headed for the house. She should be hungry. It must be supper time by now. The kitchen windows were suddenly shining through the dusk. And sure enough, Calliope was inside already, cooking.

In the downstairs bathroom, Daddy washed his hands with his sleeves rolled up. She kissed him. She did; on his cheek, she couldn't have missed it.

The food looked good, good enough to eat. Fried chicken, the crisp ridges and golden valleys of its skin glowing under the ceiling light. Why didn't she want it? Her plate was empty.

Nobody talked much. Nobody talked to her at all. There were a lot of leftovers. Cousin Byron helped Calliope clear the table. Daddy made phone calls, with Mama listening in on the extension. She could see them both at the same time, in the kitchen and in their bedroom upstairs. She couldn't hear anything.

Then the moon came out. It was bedtime, a school night. Everyone stayed up though, and the police sat in the living room and moved their mouths till she got tired of watching them. She went in the backyard again, where all this weird stuff had started happening.

The lid was still off the cistern. She looked down inside. The moon's reflection shone up at her, a full circle, uninterrupted by shadow. Not smooth, though. Waves ran through it, long, like swirls actually. Closer, she saw them clearly: hairs. Her hairs, supple and fine.

Suddenly, the world was in daylight again. Instead of the moon's circle, a face covered the water's surface. Her sister's face. Calliope's. Different, and at first Dory couldn't understand why. Then she realized it was her hair, *her* hair, Dory's own. A thin fringe of it hung around her big sister's

face as if it belonged there. But it didn't. Several loose strands fell drifting toward Dory. And again, it was night.

And day. And night. Time didn't stay still. Mostly, it seemed to move in one direction. Mama kept crying; Daddy too. Dory decided she must be dead. But what about heaven? What about the funeral?

Byron moved into Dory's old room. It wasn't spooky; it was better than his mom's house. There, he could never tell who was going to show up for drinks. Or breakfast. He never knew who was going to start yelling and throwing things in the middle of the night: his mom, or some man she had invited over, or someone else she hadn't.

Even before he brought his clothes, Byron had kept his instruments and other projects here. Uncle Marv's workshop was wonderful, and he let him use all his tools.

His thing now was gimbri, elegant North African ancestors of the cigar-box banjos he'd built two years ago when he was just beginning, just a kid. He sat on the retaining wall in the last, lingering light of the autumn afternoon, considering the face, neck, and frame of his latest effort, a variant like a violin, meant to be bowed. He'd pieced it together from the thin trunk of an elder tree blown down in an August storm, sister to the leafless ones still upright behind him.

The basic structure looked good, but it was kind of plain. It needed some sort of decoration. An inlay, ivory or mother of pearl or something. The hide backing was important, obviously, but that could wait; it'd be easier to take care of the inlay first.

Of course, real ivory would be too expensive. Herb David, who let him work in his guitar shop, said people used bone as a substitute. And he knew where some was. Small bits, probably from some dead dog or rabbit. They'd been entangled in the tree roots. He'd planned to make tuning pegs out of them. There'd be plenty, though.

He stood up, and the world whited out. It had been doing that a lot since he moved here. The school nurse said he had low blood pressure. He just had to stand still a minute and he'd be okay. The singing in his ears, that would stop, too. But it was still going when he got to the stairs.

Stubbornly, he climbed, hanging onto the handrail. Dory's—his—bedroom was at the back of the house, overlooking the garden. His mom kept her dope in an orange juice can hung under the heat vent. He used the same system for his bones. No one knew he had them; so why was he afraid they'd take them away?

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He held them in his cupped palms. They were warm, and light. The shimmering whiteness had condensed down to one corner of his vision. Sometimes that meant he was going to get a headache. He hoped not. He wanted to work on this now, while he was alone.

When he left his room, though, he crossed the hall into Calliope's room instead of heading downstairs to Uncle Marv's workshop. Without knowing why, he gazed around him. The walls were turquoise, the throw rugs and bedspread pale pink. Nothing in here interested him, except—that poster of Wilt Chamberlain her new boyfriend, Neville, had given her . . .

It was signed, worth maybe one hundred dollars. He stepped closer. He could never get Calliope to let him anywhere near the thing when she was around, but she took terrible care of it. It was taped to the wall all crooked, sort of sagging in the middle.

He touched the slick surface—slick, but not smooth—something soft and lumpy lay between the poster and the wall. What? White light pulsed up around the edges of his vision as he lifted one creased corner.

Something black slithered to the floor. He knelt. With the whiteness, his vision had narrowed, but he could still see it was nothing alive. He picked it up.

A wig! Or at least part of one. Byron tried to laugh. It was funny, wasn't it? Calliope wearing a wig like some old bald lady? Only . . . only it was so weird. The bones. This—hair. The way Dory had disappeared.

He had to think. This was not the place. He smoothed down the poster's tape, taking the wig with him to the basement.

He put the smallest bone in a clamp. It was about as big around as his middle finger. He sawed it into oblong disks.

The wig hair was long and straight. Like Dory's. It was held together by shriveled-up skin, the way he imagined an Indian's scalp would be.

What if Calliope had killed her little sister? It was crazy, but what if she had? Did that mean she'd kill *him* if he told on her? Or if she thought he knew?

And if he was wrong, he'd be causing trouble for her, and Uncle Marv, and Aunt Cookie, and he might have to go live at home again.

Gradually, his work absorbed him, as it always did. When Calliope came in, he had a pile of bone disks on the bench, ready for polishing. Beside them, in a sultry heap, lay the wig, which he'd forgotten to put back.

Byron looked up at his cousin, unable to say anything. The musty basement was suddenly too small. She was three years older than him, and at least thirty pounds heavier. And she saw it, she had to see it. After a moment, he managed a sickly smirk, but his mouth stayed shut.

"Whatchoodoo?" She didn't smile back. "You been in my room?"

"I—I didn't—"

She picked it up. "Pretty, ain't it?" She stroked the straight hair, smoothing it out. "You want it?"

No clue in Calliope's bland expression as to what she meant. He tried to formulate an answer just to her words, to what she'd actually said. Did he want the wig. "For the bow I'm makin, yeah, sure, thanks."

"Awright then."

He wished she'd go away. "Neville be here tonight?"

She beamed. It was the right question to ask. "I guess. Don't know what he sees in me, but the boy can't keep away."

Byron didn't know what Neville saw in her either. "Neville's smart," he said diplomatically. It was true.

So was he.

There was more hair than he needed, even if he saved a bunch for re-stringing. He coiled it up and left it in his juice can. There was no way he could prove it was Dory's. If he dug up the backyard where the tree fell, where he found the bones, would the rest of the skeleton be there?

The police. He should call the police, but he'd seen *Dragnet*, and *Perry Mason*. When he accepted the wig, the hair, he'd become an accessory after the fact. Maybe he was one even before that, because of the bones.

It was odd, but really the only time he wasn't worried about all this was when he worked on the gimbri. By Thanksgiving, it was ready to play.

He brought it out to show to Neville after dinner. "That is a seriously fine piece of work," said Neville, cradling the gimbri's round leather back. "Smaller than the other one, isn't it?" His big hands could practically cover a basketball. With one long thumb he caressed the strings. They whispered dryly.

"You play it with this." Byron handed him the bow.

He held it awkwardly. Keyboards, reeds, guitar, drums, flute, even accordion: he'd fooled around with plenty of instruments, but nothing resembling a violin. "You sure you want me to?"

It was half-time on the TV, and dark outside already. Through the living room window, yellow light from a street lamp coated the grainy, grey sidewalk, dissolving at its edges like a pointillist's reverie. A night just like this, he'd first seen how pretty Dory was: the little drops of rain in her hair shining, and it stayed nice as a white girl's.

Not like Calliope's. Hers was as naturally nappy as his, worse between her legs. He sneaked a look at her while Byron was showing him how to position the gimbri upright. She was looking straight back at him, her eyes hot and still. Not as pretty as Dory, no, but she let him do things he would never have dreamed of asking of her little sister.

Mr. Moore stood up from the sofa and called to his wife. "Mama, you wanna come see our resident genius's latest invention in action?"

The gimbri screamed, choked, and sighed. "What on earth?" said Mrs. Moore from the kitchen doorway. She shut her eyes and clamped her lips together as if the awful noise was trying to get in through other ways besides her ears.

Neville hung his head and bit his lower lip. He wasn't sure whether he was trying to keep from laughing or crying.

"It spozed to sound like that, Byron?" asked Calliope.

"No," Neville told her. "My fault." He picked up the bow from his lap, frowning. His older brother had taken him to a Charles Mingus concert once. He searched his memory for an image of the man embracing his big bass, and mimicked it the best he could.

A sweeter sound emerged. Sweeter, and so much sadder. One singing

note, which he raised and lowered slowly. High and yearning. Soft and questioning. With its voice.

With its words.

"I know you mama, miss me since I'm gone;
I know you mama, miss me since I'm gone;
One more thing before I journey on."

Neville turned his head to see if anyone else heard what he was hearing. His hand slipped, and the gimbrí sobbed. He turned back to it.

"Lover man, why won't you be true?
Lover man, why won't you ever be true?
She murdered me, and she just might murder you."

He wanted to stop now, but his hands kept moving. He recognized that voice, that tricky hesitance, the tone smooth as smoke. He'd never expected to hear it again.

"I know you daddy, miss me since I'm gone;
I know you daddy, miss me since I'm gone;
One more thing before I journey on."

"I know you cousin, miss me since I'm gone;
I know you cousin, miss me since I'm gone;
It's cause of you I come to sing this song."

"Cruel, cruel sistah, black and white and red;
Cruel, cruel sistah, black and white and red;
You hated me, you had to see me dead."

"Cruel, cruel sistah, red and white and black;
Cruel, cruel sistah, red and white and black;
You killed me and you buried me out back."

"Cruel, cruel sistah, red and black and white;
Cruel, cruel sistah, red and black and white;
You'll be dead yourself before tomorrow night."

Finally, the song was finished. The bow slithered off the gimbrí's strings with a sound like a snake leaving. They all looked at one another warily.

Calliope was the first to speak. "It ain't true," she said. Which meant admitting that something had actually happened.

But they didn't have to believe what the song had said.

Calliope's suicide early the next morning, that they had to believe: her body floating face-down in the cistern, her short rough hair soft as a wet burlap bag. That, and the skeleton the police found behind the retaining wall, with its smashed skull.

It was a double funeral. There was no music. ○

Tom Purdom recently told us “I’m writing a literary memoir that tells how I wrote certain stories—how I got the idea, dealt with literary problems, editors, etc.—along with relevant glimpses of personal things like my marriage, and I’m posting it on my website, philart.net/tompurdom. The first three installments discuss my early stories, the fourth and fifth my *Asimov’s Casanova* tales.” His newest story for us is a fast-paced and exciting look at what the future may mean by a . . .

BANK RUN

Tom Purdom

Sabor was sitting in the passenger shack with his concubine when his personal assistant spotted the other boat. Sabor was devoting half his attention to the concubine and half to the numbers on his information display—a form of multitasking that combined his two major interests.

Choytang rested his hand on Sabor’s shoulder. He pointed toward the rear window and Sabor immediately dimmed the numbers floating in front of his eyes.

The other boat was fueled by coal and propelled by a screw. It was moving approximately three times faster than the solar-powered paddlewheel transport that was carrying Sabor and his two companions up the lake. Eight soldiers were formed up on the right side. The six soldiers in the front row were lean hardbodies. The two soldiers standing behind them were massives who looked like they could have powered their boat with their own muscles. Their tan uniforms were accented with chocolate helmets and crossbelts—a no-nonsense, low contrast style that had become the trademark of one of the more expensive costumers on the planet.

Sabor’s wristband had been running his banking program, as usual. The display was presenting him with the current status of the twelve-hour loan market. Twelve-hour loans were routine transactions—ac-

counting maneuvers that maintained reserves at an acceptable level—and he usually let his alter run his operations in the twelve-hour market. He always checked it at least twice a day, however, to make sure his competitors hadn't developed an unpleasant surprise.

Sabor's concubine had already activated her own display. "There's a fishing commune called Galawar about four kilometers from here," the concubine reported. "You financed a dam and a big breeding operation for them. Their militia setup gets its real-life practice pursuing poachers and running rescue patrols. They can probably have a small force here eight minutes after their watch master initiates assembly."

Sabor returned the twelve-hour market to his alter and replaced it with the latest figures on the current status of the Galawar loan. "I'll talk to our captain. See if you can exercise your charms on the appropriate officers of the commune."

The captain had isolated herself in her control shack fifteen minutes after her boat had left the dock. She was sprawling in a recliner with her eyes fixed on the top of a window and her attention focused on the material her personal display was imprinting on her optic nerves.

"I'm afraid I may be about to cause you some trouble," Sabor said. "I registered a counterfeit identity when I boarded your boat. My true name is Sabor Haveri. As you probably know, I'm the proprietor of the bank that furnishes your company its primary line of credit."

The captain had looked tall when she had been stretched across her recliner but she looked even taller when she stood up. She had been operating lake boats for eighteen years, but the information in the public databanks had made it clear her boating work was primarily a money job. Most of the entries Sabor had collected from the databanks had highlighted her exploits as a member of one of the top aquatic hunting clubs on the lake. She would create an awesome vision standing on the back of a riding seal, in hot pursuit of a yellow-feathered swordbeak.

"I've been having a problem with one of my less reasonable customers," Sabor said. "He requested a loan I consider unwise. He's trying to force me to make the loan and I decided it might be best if I put some space between us. Unfortunately, he appears to be pursuing me on the steam propelled boat coming up behind us."

The captain returned her attention to her display. Her uniform had been created by a designer who favored clean, uncluttered lines and she had arranged it with a flair that gave her an air of rangy competence. She jabbed her finger at the air and frowned at the response she received.

"I think I should ask you your customer's name, Honored Sabor."

"Possessor Kenzan Khan. The boat appears to have eight soldiers on it. I would appreciate it if you would help me resist if they try to board us."

"With a crew of one?"

"I have good reason to believe I'm going to be receiving a little armed assistance from the militia maintained by a fishing commune called Galawar. My personal assistant has some useful skills and I can assure you I'm not totally helpless myself. If you'll give us some help at this end, I believe we can hold off our assailants until our friends at Galawar can ride to our rescue."

The captain braced her hand on the upper part of the bulkhead and stared out the window. It was a windy morning in the last days of autumn. The surface of the lake looked dark and rippling.

"I hate to sound melodramatic," Sabor said, "but the entire financial system of our planet could be at risk. Kenzan tends to be impulsive. If his psych staff gets me under his control . . . and I make untenable loans in response to their manipulations . . ."

"Most of my ammunition stock consists of non-lethal ammunition. Will non-lethals be sufficient?"

"I'm just trying to stay out of their hands. Killing them isn't necessary."

Sabor's concubine was standing in front of the rear window watching the other boat eliminate the last two hundred meters that separated them. "So how did your chat with the commune go?" Sabor asked her. "Are they feeling amenable?"

Purvali's designers had started with a fleshy woman with a strong sex drive. Then they had stretched out the basic design, added an upper-percentile intelligence, and enhanced the aspects of her genome that influenced coordination and gracefulness. The result was a finely calculated combination of elegance and voluptuousness—a pairing that triggered all the erotic and emotional yearnings the designers had detected when they had given Sabor their standard customer profile tests.

The designers had also produced an exceptionally competent human being who could satisfy all Sabor's yearnings for good support staff. Purvali doubled as his administrative assistant, in addition to her other functions. Purvali and Choytang constituted his entire permanent staff.

"I talked to the primary coordinator's executive officer," Purvali said. "She's talking to the primary coordinator now."

"Shall I give them a call?"

"I have a feeling they may want to bargain."

Sabor stared at the oncoming steamboat. The Galawar commune had bargained down to the last hundredth of a percentage point on both the projects he had financed for them. If he called again, and let them know he was worried . . .

"The soldiers you're looking at belong to Colonel Jina," Purvali said. "I estimate we can hold them off for approximately seven minutes minimum, nine maximum, after they come into range."

"Even if I bring you in as a surprise?"

"Yes."

"It looks like I may have to exercise my talent for stalling. Tell the primary coordinator I want to have a chat. See if you can put me through to our friend the colonel."

The most prominent feature in Colonel Jina's publicity portraits was the smile that adorned his globular, well nourished face. He was sporting an especially cheerful version of his trademark when his image popped onto Sabor's optic nerves seconds after Purvali initiated the call.

"Good morning, Honored Sabor. It's a pleasure to hear from you."

"I understand I'm being pursued by soldiers who are affiliated with your enterprise, Colonel."

"I've dispatched eight of my best. They have orders to board your boat and take you prisoner."

"I've examined your rate schedule. I'm prepared to offer you 50 percent more than you're being paid."

The colonel frowned. Soulful regret replaced The Smile. "I'm afraid I have to inform you I can't consider your offer. I appreciate your interest but I never entertain counter offers once I've committed my armed staff to an operation. My reputation for dependability is one of my primary business assets."

"I understand that, Colonel. I should advise you, however, that the situation may not be as one-sided as it appears. I have some capacity for violence, too."

Choy was bustling around the passenger shack overturning tables and chairs and lining them up in front of the windows. He and Purvali had wrapped themselves in defensive vests and planted hats with defensive units on their heads. Sabor had slipped into a vest but he had laid his hat on a windowsill.

Purvali pointed at the air in front of her eyes. Sabor nodded and his display split in half. A lean man in a recyclable work suit occupied the left section. A subtitle reminded Sabor he was looking at the primary coordinator of Galawar Commune.

"Good morning, Honored Sabor," the primary coordinator said. "My executive officer says you've asked for assistance."

"My principal advised me you would probably resist," Colonel Jina said. "I took that into account when I assigned a completely equipped squad. You can surrender now or we can take you prisoner five minutes from now."

Sabor's attention started multi-tracking the two conversations. His communication implant had automatically initiated a switching program when it bifurcated the display. The implant transmitted a real time image to the appropriate person whenever Sabor spoke and the other person received a temporary simulation. The primary coordinator and Colonel Jina were probably using similar programs.

The conversation with the primary coordinator was essentially a standard business bargaining session. The coordinator recognized his obligation to resist anyone who attacked honest merchants as they plied their trade on the lake. He was even willing to let Sabor and his party make a short stop on the commune's territory once they eliminated their difficulties with Colonel Jina's representatives. But he also knew an opportunity when he saw one.

"We have several members who feel we should refinance our primary loan, Honored Sabor. You may have heard about the interesting line of crabs the Renwar Institute unveiled two tendays ago. We're bidding for the exclusive reproduction rights. The numbers indicate we could draft an unbeatable offer if we could decrease the cost of our current debt servicing."

With Colonel Jina, Sabor concentrated on more lofty matters—and the time-eating speeches that lofty matters tend to generate. "Your principal is endangering the entire financial system of our planet, Colonel. Kenzan Khan is one of the most fiscally irresponsible personalities I've worked with. If he gets my bank under his control, he'll drain my resources until

he triggers an uncontrollable financial chain reaction. You wouldn't accept a contract to poison the lake. The collapse of my bank would be just as devastating."

"I appreciate your concern," Colonel Jina said. "But it's my understanding there are three other banks with assets that are as extensive as yours."

The steamboat had pulled abreast of the starboard windows. The soldiers were still grouped in their parade formation.

"And they're all interlinked," Sabor said. "If one of us fails, the others will all be affected. The relationships and interactions in a financial system can be just as complex as the relationships and interactions in an ecological system."

The six hardbodies on the other boat trained their weapons.

"I appreciate your willingness to help us," the coordinator said. "Our rescue force should reach you in about seven minutes."

A crack slithered across the window directly in front of Sabor. More cracks appeared in the windows on either side. Clouds of particles replaced all three windows. Chilly autumn air flooded the passenger shack.

Sabor had thrown himself flat as soon as he had seen the first crack. He stretched out his right arm and started crawling toward the barricade Choy had assembled in front of the window.

Choy had assembled three guns. He and Purvali were lying on their backs with their weapons raised above the barricade and their eyes fixed on the aiming screen mounted on the rear of each barrel. Sabor picked up the third gun and tapped a symbol on the control screen built into the stock. The screen clicked off a ten second count. A line of boldface announced that the gun had linked with the short-range interface built into his wristband.

"They're firing at the barricade," Choy said. "They'll have it dissolved in about two minutes."

"What are you aiming at?"

"We're concentrating on the hardbody on the left of the line. I'm assuming we should try to completely eliminate one gun."

Sabor had already raised his gun above the barricade. He marked the hardbody on the left with a mental command and the barrel swiveled on its mount. The gun was an elegant piece of smoothly functioning machinery, emitting a well-mannered *slap . . . slap . . . slap* as its internal computer calculated the range, checked the position of the barrel, and transmitted a fire command once every four seconds. The anti-personnel loads contained molecular devices that temporarily disrupted the central nervous system. The defensive system built into the soldiers' uniforms deployed defensive molecules that could neutralize the incoming moles. A concentrated attack could overwhelm the defensive moles and remove a hardbody from the firing line for several minutes. The gun wasn't programmed to compensate for the rocking of the waves, but Sabor's own brain could handle that aspect of the situation.

He rotated the gun to his right, to keep his target on the aiming screen, and realized the other boat was turning.

"They're turning onto a possible interception course," Choy said.

"I've checked the databanks for information on their jumping capacity," Purvali said. "There's nothing explicit but I estimate the hardbodies can probably hop across a two meter separation without making an extraordinary effort."

"Can you do me a favor?" Sabor said. "Can you find out what kind of cargo this floating palace is carrying? Perhaps we can find something our captain will be willing to part with. And gain a small increment in our forward progress."

Sabor's cool, chinup élan was one of his trademarks. His mother had included it in his specifications and he considered it one of her better decisions. He had even ordered a biochemical reinforcement when he had reached legal maturity. He could put several million yuris in play and cheerfully sleep, eat, and dally with a concubine while he waited for the results. There were times, however, when he suspected some hidden segment of his personality was trembling in terror while it watched the rest of him treat major calamities as if they were trivial disruptions.

A list popped onto Sabor's display—a complete catalog of the boat's cargo, assembled from the contracts that had been posted in the databanks. Public posting couldn't be enforced by law, but people who ignored the custom enjoyed short business careers. There was no central government on Fernheim. The business community enforced its rules by monitoring deals and invoking the ancient human customs of shunning and ostracism.

The bulkiest item on the list was a crate containing ten ceramic microwave receptors. The last starship to orbit Fernheim had included a passenger who had brought the program for producing the most advanced model available in the solar system. The receptors would capture 15 percent more energy than the most competitive model available on the planet—a big increase for a world on which fossil fuels were still underexploited and only five microwave generators had been placed in orbit.

The receptors took up most of the cargo space. The rest of the cargo consisted of small orders of luxuries. Meat taken from real animals. Organically grown wine. Nine golden swans.

"We could use the swans as harassers," Choy said. "All I need is the activation codes."

Sabor pipped the captain. "I would like to buy your cargo. My figure for the total retail value is three hundred and sixty thousand. I'll add 10 percent to cover delays and aggravation."

"To lighten ship?"

"Yes."

"It won't add more than a kilometer per hour to our speed. Given their current position . . ."

"We're in an every-second-counts situation."

"It's yours."

"I'll need the activation and control codes for the ornamental swans. Please transmit them to my assistant, Choytang."

The overturned table Sabor was using for cover metamorphosed into dust and fragments. Sabor rolled backward and huddled beside the hatch in the middle of the shack.

Lights turned on as soon as he dropped through the hatch. The crate containing the ceramic receptors took up almost half the floor space. The nine swans had been arranged on a pallet with a low guard rail. The rest of the cargo had been packed in neatly stacked boxes.

Choy stepped up to the swans and activated their implants with a command from his own communications implant. Their feathers were as glossy as pure gold leaf. Ripples of light ran along their bodies when they stretched their necks and rustled their wings.

The boat was a typical example of Fernheim's betwixt-and-between economy. A big loading hatch on the left side of the boat responded to a direct signal from the captain's brain and rolled upward on a wheeled track. The crate holding the receptors opened in response to another impulse from the captain's cerebral cortex. And Sabor and Purvali picked up two of the receptors and lugged them across the hold with the chemical energy stored in their own muscles.

The hatch was so close to the water line they could have dipped their hands without bending over. Three hundred meters of dark water stretched between the boat and the shore. Two houses stood beside a creek that emptied into the lake. Terrestrial oaks and sycamores spread branches that were covered with autumn leaves. The entire shoreline had been completely terrestrialized for over two decades.

The captain had given them free access to the information integrator in her command interface. They could examine the entire composite picture the integrator assembled from the sensory moles embedded in every meter of the boat's structure. They trudged back and forth across the hold with most of their attention focused on the positions of the two boats.

Choy waited until the other boat was making its last maneuvers for boarding position. The swans lumbered across the hold in two ragged lines. Their huge wings pounded at the air. Choy guided them through the hatch and they turned as soon as they gained altitude and drove toward their adversary's deck.

The coal burner had overcome their captain's best efforts. It was lying almost parallel with the right side of their boat, with a three-meter gap separating the two hulls. The hardbodies were lined up with their guns at port arms. They were obviously primed to jump as soon as their boat's sidewise drift brought them close enough. The nine swans covered their helmets and torsos with a blanket of hammering wings.

The hardbodies reacted with the remorseless calm that had been built into their personalities. Their right hands dropped off their guns and gripped the swans around their necks. The two massives reached into the storm of writhing feathers and applied their oversized muscles to the necks the hardbodies had neglected.

"Have the captain open the right loading hatch," Purvali said. "Enough for us to shoot out."

Sabor started moving toward the hatch while he was still pipping the captain. The hatch creaked open and they each took a single hardbody and poured moles into his armor. They had to shoot upward at a steep angle, through the commotion created by the swans, but a hit anywhere on the armor would wear it down.

Dead swans dropped into the water in front of Sabor. The gap between the two hulls narrowed. The side of the other boat loomed over them. On Sabor's display, the omniscient eye of the electronic system presented him with a less pessimistic picture. Three hardbodies had dropped out of the line—presumably to recharge their armor. Two swans were still defying the pitiless hands closing around their necks.

Three hardbodies jumped across the gap. Boots pounded on the deck over Sabor's head. He scurried away from his firing position and aimed his gun at the hatch he had used to enter the hold.

A hardbody suddenly started firing his gun. The display responded to the shift in Sabor's attention and presented him with two figures in skintight wetsuits. Two more figures were crowding in behind them. In the water, just a few meters from the boat, three seal riders were standing on their mounts as they poured a stream of projectiles into the hardbodies.

"I requested a son who was restless and adventurous," Sabor's mother had told him. "I suppose I shouldn't be surprised when he tells me he wants to put twenty-two light years between himself and all the pleasures he's been enjoying since his eyes first registered the light."

"As far as I can tell," Sabor had responded, "the only pleasures I'm leaving behind are the pleasures that are irrevocably associated with my family. The only difference between the ship and the home I've been honored to share with you and my sisters is the fact that the ship will be moving away from the sun instead of traveling around it. I'll have almost every luxury I have here. We'll still have fabricators when we reach Fernheim. The first thing I'm going to fabricate after we make landfall is a bottle of Talini."

Sabor had been fifty-two when he had broken the news. His mother had been reigning over their family enterprises for almost a century. Billions of neils and yuris bounced around the cities of the asteroid belt during every twenty-four-hour day-period, and their economists estimated that 30 percent of the total visited their databanks during its rambles.

Rali Haveri was a placid woman, for all her power. She had produced him, Sabor believed, because she felt her life needed a dash of turbulence. Adventurous people stirred her. Most of her temporary consorts had been self-centered erratics.

Sabor had reached maturity in an environment that surrounded him with gentle music, decorous parties, and amiable personalities. Alajara had been one of the pleasantest cities in the asteroid belt—a mansion inhabited by ten thousand people who were all employees of his family's business. Sabor mastered three musical instruments, pursued his hobbies and enthusiasms with equipment that would have made most professionals groan with envy, and dallied with his choice of concubines when he reached the appropriate age. His mother and his older sisters took care of the details that generated the family income.

There had been a time when many visionaries thought the fabricator would make bankers obsolete. Press the right buttons and your magic box would generate a fully cooked roast on demand. Press another combination and it would extrude furniture for your dwelling place, clothes

for your body, and toys for the idle hours it had bestowed on your life. Why would anyone need money?

Fortunately, it hadn't quite worked out that way. Fabricators had been universal household appliances for two centuries and Sabor's family was still engaging in its traditional business. The introduction of the fabricator had disrupted Earth's economic system for approximately two decades. It had triggered a catastrophic massive deflation. Prices and wages had tumbled by 70 percent, by most calculations. But when the turbulence had subsided, Sabor's family had still been negotiating loans and pulling profits out of microscopic variations in interest rates.

Fabricators could provide you with the basics at a ridiculously low cost, but they still needed energy and raw materials. They needed programs that directed their operations and time to run the programs. And there were commodities that couldn't be manufactured by the best machines available. Fabricators couldn't manufacture social status. Fabricators couldn't engage in the genetic manipulations and the years of post-natal management that produced personalities like Purvali and Choytang. Above all, fabricators couldn't manufacture *expertise* and *imagination*. They couldn't design their own programs. They couldn't visualize the new products that would make consumers lust after the programs that would produce them.

Money, Rali Haveri liked to remind him, was essentially irrational. It had value because people agreed it had value. She had placed two million *yuris* in Sabor's account when he had established his residence on the *Carefree Villa* and everyone on the starship had agreed he could use it to buy goods and services and make loans. They had accepted it as money through three rests and four awakes and they had continued to accept it when he had landed on Fernheim. They even accepted the additional numbers his mother had radioed him since he had landed on the planet. The fact that every message had to travel for twenty-two years made no difference. Human societies needed some sort of monetary system and he was the son of a woman who could obviously bless him with any sum he could reasonably desire. The financial system in the solar system even recognized the numbers he transmitted when he paid his mother the interest she charged him.

"I would be avoiding my maternal responsibilities if I didn't demand interest," Rali had lectured him across the light years. "I'm only imposing the same discipline on you that I would try to impose on myself—the same discipline the solar financial system imposes on me."

Sabor reentered the boathouse and dropped into a corner two minutes after the captain returned their boat to the main channel. Purvali ran a test on the boathouse fabricator and ordered pharmaceutical drinks that would moderate their emotional stress. Colonel Jina's immobilized soldiers were being relieved of their armor and weapons and placed on the deck of the other boat. The boat itself would be turned around and sent back upstream under its own control.

The primary coordinator had already advised Colonel Jina he could pick up his soldiers' equipment in two days. There would be no request for ransom or damages.

"We try to maintain good business relations with Colonel Jina," the pri-

mary coordinator had explained. "We usually use his services when we hire guards for our more valuable shipments."

Purvali swayed toward Sabor with a drinking cup in her hand. He held up three fingers as she bent over him.

"We have three projects we have to advance simultaneously," Sabor said. "We have to organize our fellow bankers into a united front, we have to find a weakness we can exploit, and we have to prepare for a sojourn in the splendors of the unterrestrialized wilderness. I'll start work on number one. I want you to work on the others. Assume we'll embark on our wilderness holiday as soon as we're properly equipped."

Purvali checked her display. "They only have eight widemounts in the whole commune."

"Try to purchase four. I'd like to pack a *few* comforts."

The effects of the drink flowed through Sabor's muscles and nerves. His display projected his own image in front of him and he observed his delivery as he created his message to his three colleagues.

"I regret to tell you that I have just fended off an armed attack financed by Possessor Kenzan Khan. I believe we should immediately suspend all dealings with Kenzan Khan. I will be taking other actions shortly, but I believe an unequivocal display of unity is absolutely essential."

He paused the recording and took another swallow of his drink. Purvali had flavored it with banana and coconut—an aroma he had treasured since he had first savored it sometime around his fifth birthday.

"Kenzan has become obsessed with his long term feud with Possessor Dobryani. He wants to mount an armed occupation of the land around the mouth of Winari Brook. Kenzan and Dobryani have both been eyeing that area and Kenzan has convinced himself Dobryani is preparing to seize it by force. He wants me to finance the purchase of one hundred soldiers. I have decided I have to refuse. I've been subsidizing his excesses since he first took control of his possession. I have reached my limit. Firm action is absolutely necessary."

The attachments included a statement by the coordinator of Galawar, visuals of the encounter with Colonel Jina's force, and a copy of the message from Kenzan Khan that had convinced Sabor he had to evacuate his primary apartment in Tale Harbor.

There was no room in Kenzan Khan's worldview for a simple clash of desires. The heart of his message was a long flood of denunciations. Possessor Dobryani wasn't opposing him merely because she wanted the same thing he wanted. She was a malevolent spirit with a compulsion to control every patch of terrestrialized land on the planet.

"We all know what she is, Sabor," Kenzan had proclaimed. "I've been defending myself against her attacks since the year I succeeded my uncle. The days when you can wiggle and sidestep and make your little jokes are over. Give me what I need or I'll take it. And everything else you have with it. Money isn't the only form of power."

Kenzan had framed his message so his face would appear to be crowding against the person who received it—a juvenile trick, but it was Kenzan's childishness that made him dangerous. Kenzan's parents had apparently believed an imposing frame still had its advantages. Kenzan

was over two heads taller than Sabor, with bone and muscle in proportion. Lately, he had been neglecting his physical maintenance. He had compensated by costuming himself in ornate belted robes that hid his paunch. A tangled black beard obscured his jowly cheeks.

The robes were a convenient wrapping for a sexual impulsive. Sabor had witnessed the advantages of Kenzan's turnout during a tediously elaborate lunch. Kenzan could simply grab the nearest concubine who appealed to him, untie his robe, and indulge himself without any bothersome need to undress.

Kenzan's uncle had been a methodical, patient man who drew his deepest satisfactions from the steady expansion of his wealth. If the uncle purchased the genome for a new type of fruit tree, he sold a hundred fruits for every bite he ate himself. He had been murdered by an heir who gorged according to his impulses, fed the leftovers to his animals and favorites, and borrowed to buy any novelty that caught his fancy. Kenzan's banquet garden was bigger than most playing fields. His stables housed two hundred of the costliest riding animals the biodesigners had managed to generate.

Kenzan's feud with Possessor Dobryani had begun when Dobryani had stolen the genome of one of his prized meat animals. Kenzan had purchased exclusive rights to the genome from an immigrant who had stored it in his auxiliary intelligence when he had left the solar system. Kenzan had been the only possessor on the planet who served the animal on his table. He retaliated by deliberately mining titanium from a low-concentration site that ruined the view from one of Dobryani's favorite villas.

There was no central bank on Fernheim, but the four leading bankers all tried to abide by the rules a central bank would have enforced. Sabor maintained reserves that equaled 18 percent of his loans—a conservative choice that was based on his family's most rigid traditions. The other three favored reserves of 12 to 15 percent. Sabor's money management program borrowed from the others when his reserves dropped below his minimum and loaned to them when they were short. Money bounced between the four banks in a continuous, unending balancing act, at short-term interest rates their programs negotiated in thousandths of a percentage point. At the present moment, Sabor owed Heinrich Dobble approximately eight million yuris, at an average interest rate of 2.116 percent. The other two bankers owed Sabor twelve million.

His display presented him with Heinrich's standard business image twelve minutes after he had dispatched his message. As usual, Heinrich was standing rigidly erect and wearing a black, high collared outfit that gave him a reassuringly formal air.

"I'd already seen a report on the attack," Heinrich said. "I would have thought your client was just ranting if I hadn't seen that."

"I have to confess Kenzan took me by surprise, too. I vacated my quarters as a precaution—to give him some time to calm down."

"How long can he last if we institute a freeze?"

Sabor dropped his social persona and slipped into his straight business mode. He and Heinrich never wasted words. "Two to four tendays with the freeze alone. But the freeze is only a first step. I'm hoping I can neutralize him in three or four days."

"Neutralize?"

"Permanently. He's a spendthrift. He won't recover if I hit him hard enough."

"If he doesn't get you under control first."

"I'm retreating to the wilderness. First he has to locate me. Then he has to catch me."

Heinrich frowned. "How much time have you spent in the wilderness, Sabor?"

"I've been funding expeditions for twenty standard years. I probably understand the survival requirements better than some of the gadabouts I've bankrolled."

"You can't hire fifty soldiers and surround yourself with a solid defense?"

"And where would I place my temporary fortress? The primary coordinator has given me permission to disembark in Galawar. He hasn't told me I can stay there. We're dealing with a random force, Heinrich. Kenzan could attack me even if he knew I had him outnumbered five to one. He could turn a place like Galawar into a disaster."

"Kenzan's irrationality is one of the factors I'm weighing. I could find myself in a very serious situation if I oppose him and he gets your resources under control."

"And you'll find yourself in a worse position if I give in to his demands. He isn't going to stop with one extortion. He doesn't know how to stop."

"I intend to look after myself, Sabor. I reserve the right to reappraise my options. At any time."

They entered the wilderness five hours after they stepped onto the Galawar docks. A twelve-meter electric hedge separated the terrestrialized land from the native ecosystem. On the terrestrial side of the barrier, they were surrounded by rose bushes, vegetable gardens, and fields covered with high yield fuel vines. On the wilderness side, thick tree trunks towered over the hedge. Cold autumn sunlight spread across leaves that had become white and translucent as the season had advanced. The trees on Fernheim produced leaves that tended to be smaller and paler than the leaves of terrestrial trees—a response, presumably, to the dizzying pace of the planet's year. Every organism on Fernheim had to speed through seasons that were only half as long as the seasons on Earth.

The gate in the bottom of the hedge had been designed with a grudgingly narrow aperture. Their widemounts passed through it in single file, with their carriers scraping the leaves. Choy led the way, with Sabor in the second position.

Widemounts had been created by reducing the size of the terrestrial elephant and modifying the chemical foundations of its temperament. Sabor's widemount barely reached the top of his head, but its broad back and columnar legs could support a load that included Sabor and all the equipment that would keep a civilized human reasonably content with his lot. The fourth widemount carried an extra fabricator, extra prefabricated supplies, and twelve bottles of wine that Sabor had ordered from Galawar's communal fabrication facility.

Sabor had linked his display to Purvali's. He could monitor her survey of Kenzan Khan's financial situation while he concentrated his attention on the normal complexities of his business. Half his display tracked the ebb and flow of the planetary high-yield market. The other half presented him with Purvali's attempts to untangle the web of loans and expenditures that dominated Kenzan's economic life.

"There are times when the speed of light limitation has its comforts," Sabor said. "I can imagine what my mother would say if she knew I'd been loaning real money to someone with that kind of balance sheet."

A cloud of birds had surrounded Sabor's widemount as soon as he had passed through the barrier hedge. Fluttering bodies banged against the transparent upper half of the carrier. Flocks of ground birds scurried away from the relentless plod of his animal's legs. The pale leaves created a subtly alien atmosphere that many humans found disturbing.

His auxiliary intelligence fed him data about the birds and the different species of trees—some of it information that had been collected by expeditions he had financed. Most of the settlers on the planet were primarily interested in making homes for themselves, but a small minority had been captivated by the opportunity to study a new biological system. Mankind had discovered four life-bearing worlds so far. Two were examples of parallel evolution—the life forms roughly resembled the life forms on Earth. Fernheim was one of the parallel worlds, but it had its share of anomalies. Earth had never passed through an age dominated by birds. Fernheim had reached that stage without generating an age of giant reptiles—a finding that had set evolutionists twittering as soon as the first glimpses of the fossil record had filtered back to the solar system.

Purvali was linking every loan Kenzan had been given with the items he had spent it on. She had started with a thorough analysis of Kenzan's accounts with Sabor. From there she would move on to the public records. Kenzan liked to brag. The public databases contained detailed information on every animal, food, woman, or grandiose display that had sucked purchasing power out of his accounts.

Sabor activated a high-level search alter and put it to work. So far he had only heard from one other member of the four. Ar Badov had responded with a brief text message—*I will give your efforts my complete support. Don't let us down.* Ar Badov had been the first banker on the planet. He and Sabor had been locked in an intense, highly personal rivalry from the moment Ar had learned that a scion of the Haveri family had set up shop on *his* planet.

The fourth power center in the financial system was controlled by a remote, almost reclusive woman named Zara Nev. It had been three hours since Sabor had advised her that Heinrich and Ar had joined the fray—almost seven hours since Zara had received his first invitation.

The research alter presented him with a report twelve minutes after it started burrowing through the databanks. Zara had buried her machinations in a transaction network that included three other deals. It was a perfunctory attempt at camouflage by the standards maintained by Sabor and his colleagues.

"I would consider that an unequivocal negative response to my appeal

for help," Sabor said. "She hasn't sent me an outright rejection, but she's only made a token effort to hide her support for our respected opponent."

"There's nothing unequivocal about the pool of capital she's placed at Possessor Khan's disposal," Purvali said. "He can hire one hundred man-units at Colonel Jina's standard price—two full squads for over four days, with one fully loaded airship."

They were riding into a broad, heavily forested area that stretched between two major rivers. Sabor had asked his display for a random course and it had angled them fifteen degrees southward, toward the hills that bordered the Ratagava River. The widemounts plodded through the forest undergrowth at a steady eight kilometers per hour. Once every hour they stopped for fifteen minutes and foraged. The widemounts had been equipped with intestinal add-ons that could convert the planetary vegetation into digestible molecules, but it was an inefficient process. They needed 40 percent more food, by weight, than they would have consumed if they had been processing terrestrial food stocks.

The humans stayed inside their carriers while the widemounts stuffed bushes and leaves into their mouths. Eight guard cats patrolled the area that surrounded them. Choy received the transmissions from their implants and rotated part of his attention from cat to cat.

The forest had slipped into darkness by the time they made their second stop. The cats refueled on meat produced by the fabricators and Sabor took Choy's advice and let the animals rest for a full hour. He had already decided they would keep moving for another three hours.

They were assuming Colonel Jina would probably mount his pursuit force on an airship. The planetary helicopter population had slipped past the two hundred mark, but an airship was almost as fast and it could creep along under solar power if it slipped beyond its normal range and exhausted its batteries. According to Purvali's analysis, every hour they traveled could add thirty minutes to the time an airship would eat up looking for them if it used an optimum search pattern.

The exploration of the databanks was almost as tedious as their step-by-step progress through the night. Purvali couldn't hop on a promising lead and pursue it through a continuous give-and-take with the public information system. Her transmissions to the communications satellites had to be bundled into blips and randomly spaced several minutes apart.

"So far," Purvali said, "Possessor Khan's military expenditures look like they offer the most promise. He's taking on two opponents at once—you and Possessor Dobryani."

Her report hopped to a map marked with data labels. Kenzan was renting fifty soldiers that belonged to Possessor Makajida—the possessor who owned a tract on Kenzan's northern border. The fifty extra soldiers had been allocated to the force he had deployed against Dobryani.

"He needs those soldiers," Purvali said. "And Heinrich Dobbie is the dominant figure in Possessor Makajida's financial affairs. Possessor Makajida has five active credit arrangements and he's restructured his debt six times in the last eleven years. Heinrich Dobbie funded two thirds of the direct loans in four of the credit arrangements and he was a pivotal participant in five restructurings, once you do a little digging."

"So I say a few words to Heinrich, Heinrich says a few words to Makajida, and we both let my lady Dobryani know she can ravage Kenzan's holdings as soon as he loses control of Makajida's fifty warriors."

"It had occurred to me that might be one possibility. . . ."

"I think I would prefer something a bit less obvious. I suspect my good friend Heinrich would, too. Is there any somewhat subtler method we can use to persuade Possessor Makajida he should reclaim his property?"

"Do you have any suggestions?"

"I'd like to leave it to your creative talents for the time being. I will then apply the all-important finishing touches, as usual."

The security system woke them twice during the night. The first time a flock of nocturnal birds assumed a formation that bore a vague resemblance to a tree-skimming airship. The second time six flightless predators approached the northern perimeter and indicated they might not retreat when three of the guard cats converged on them.

Sabor had contemplated a visit to Purvali's carrier while he had been savoring the after taste of the sauces he had chosen for his evening meal. He toyed with the idea as he stared into the darkness after both disruptions. And decided, each time, that he should accept the realities of his situation and activate his sleep control program. He was fighting a war. He would remain in warrior mode until he eliminated Kenzan Khan.

They started moving as soon as the morning sun glowed through the highest leaves. Sabor indulged in quick catnaps during their first legs, but he made Purvali sleep a full two hours extra. He received his reward ten minutes after she finished her morning rituals.

"Possessor Makajida has a border rival, too," Purvali said. "Possessor Avaming. They've been feuding ever since Possessor Avaming occupied a slice of the lakefront that Possessor Makajida had planned to claim. Possessor Avaming has been a good customer, but he's just as spendthrift as most of his peers. I suspect he might be induced to threaten Possessor Makajida if you offered him a satisfactory incentive."

"And Makajida would then feel he had to recall his fifty soldiers. And there would be no indication Heinrich had anything to do with it."

"The effect on Kenzan Khan could be devastating. I've been looking at his relationship with Possessor Dobryani. There is nothing shallow about their enmity."

"Do you have any theories on the source of their acrimony?"

"Their attitudes toward the opposite sex appear to be mutually contradictory. They each seem to favor the total submission of their sexual partners."

Sabor nodded. "I've had similar thoughts every time I've heard him attack her. There are times when he's so rabid he sounds like he's indulging in self-satire."

"I think there's a very high probability she would seize the opportunity to destroy him if it became available."

Sabor's widemount sloshed across a pebbly stream. On his right, one of the guard cats took the obstacle in a low, stretched-out leap, with its forepaws pulled tight against its chest and its rear legs trailing behind it. Startled waterbirds surrounded the cat with an explosion of flapping wings.

"Possessor Avaming isn't going to respond to a bribe," Sabor said. "He takes great pride in his aristocratic indifference to material gain."

"Shall I consider that a rigid limitation?"

"It would probably be wise."

"I can see three possibilities. Possessor Avaming's payments to architects and landscapers during the last ten years equal 62 percent of his total debt. They started declining about four years ago and he started buying musical instruments and hiring musicians. In the last year, he's started spending money on water hunting."

"He's obviously a prime example of a serial enthusiast. I suspect you'll find water hunting will present the most promising opportunities at this moment."

Purvali cut the connection and Sabor turned part of his attention to the input from a camera that watched his rear. The steady fallout from the trees had degraded the transparency of Purvali's carrier, in spite of the unbroken efforts of the cleaning moles, but he could still watch her work. He had never understood why men like Kenzan Khan preferred women with limited abilities. Purvali was a delight in every situation he normally shared with her, but she could seem achingly—*hauntingly*—beautiful when her face was shaped by the total concentration she focused on her work. Many people sank into slack-faced stupors when they stared at the displays their implants transmitted to their optic nerves. Purvali looked as taut as a hunting animal.

Choy was his usual loose-jointed self. Judging by the way his hands were moving, he was probably participating in a simulated unarmed combat spree while he monitored the security system. He had started chopping and blocking when they had finished the last feeding stop. He was still pummeling the air when they lumbered into the last kilometer that lay between them and the point the information system had chosen for their next stop.

"Twelve years ago," Purvali said, "Possessor Avaming was loading the databanks with descriptions of his buildings and remodelings. Six years ago he had thirty musicians on his payroll and he was bombarding his friends with invitations to concerts. Now he's started spending whole ten-days racing up and down the lake pursuing the larger members of the yellow-feathered swordbeak population."

This time Purvali had assembled a concise formal report. Option One revolved around a new prey animal—a faster, sleeker version of the yellow-feathered swordbeak. The hunting fanatics had placed a few samples of the upgrade in the lake and they wanted to triple the number. Most of the other people with an interest in the lake had registered their opposition—on the very solid grounds that the increase would tip the competitive balance in favor of the enhanced swordbeaks, with the usual unpredictable consequences for the aquatic ecosystem. Avaming had joined the campaign to overcome the opposition, but he was still a novice. If Sabor could help him arrange a victory, his status would take a substantial leap.

Sabor shook his head. He could offer Avaming a financial subsidy that would overwhelm the opposition. It wouldn't be the first time he had fi-

nanced a little opinion engineering. But it would plunge him into a political situation that was just as unpredictable as the ecological effects.

Option Two was another play on Avaming's appetite for social status. Killing was only a part of the sport. To win the full admiration of your colleagues, you had to ride and slaughter with impeccable style. Avaming had bought the most expensive performance implants on the market, but the programs he had planted in his nervous system could only take him so far. To reach the highest levels of the sport, he needed a coach—someone who could teach him all the accepted nuances of true deportment.

"He's demonstrated he has an above average drive for social status every time he's surrendered to a new enthusiasm," Purvali argued. "His music mania included a series of private concerts that became some of the most sought-after invitations on the planet. Now he's applied to the hunting coach everybody wants. And she's treated him just like any other novice and put him on the bottom of her waiting list."

Sabor scanned Purvali's profile of the coach. He tipped back his head and stared at the light at the top of the forest.

"I believe it's time we committed to a higher risk level," Sabor said. "There are certain kinds of communication that simply can't be compressed into blips."

"It will take Colonel Jina's technicians about seventeen minutes to locate us," Purvali said. "We're now about three hours by airship from Colonel Jina's hangars. I can't find any indication they've positioned an airship in a closer location."

The coach's welcomer had been costumed in the kind of understated, scrupulously draped shirts Sabor's mother had favored. It had been shaped by one of the best known designers on the planet—a hard working stylist with several hundred thousand high-earning yuris on deposit in Sabor's databanks. The coach would return Honored Sabor's call in approximately twenty minutes, the image informed him. The coach was Working with a Student.

The coach didn't list her fees in the databanks, but Purvali had researched her life style and produced a reasonable estimate of her income. Sabor had decided a hundred thousand yuris would probably win him a fast acceptance. He raised his estimate by fifty thousand when he saw the designer's logo floating in the lower left of the display—and reduced it by twenty-five when the coach returned his call fifteen seconds after his system reminded him the twenty minutes had come to an end.

"I'd like to offer one of my better customers an impressive gift," Sabor said. "I'm prepared to pay a substantial fee."

He switched his display to a forty-five second recording of Avaming on seal back. "I'm no connoisseur of these things, but it seems to me Possessor Avaming may have some natural talent, in addition to his obvious enthusiasm."

The coach nodded and looked suitably thoughtful. "It's hard to make a proper evaluation from recordings, of course. I always evaluate my prospective students in person."

"I understand. I can offer you a hundred thousand yuris for your trouble. I'll be happy to transfer the whole amount in advance of your evaluation."

A familiar look flicked across the coach's face. She restored her air of cool indifference with a speed that made Sabor feel grateful he hadn't tried to offer her a few thousand less. "I should advise you Possessor Avaming has acquired several of the less obvious bad habits," the coach said. "He will have to demonstrate he is willing to relearn the basics."

An oversize text message from Purvali preempted the space next to the coach's head. *Your transmission is being examined. I can't defend it without interfering with your conversation.*

"I'm confident Possessor Avaming will welcome the opportunity to be evaluated by someone of your stature," Sabor said.

"Then you have my permission to tell him I can schedule an evaluation within the next three or four days."

Purvali replaced the coach the moment he terminated the call. "Colonel Jina seems to be making an all out effort," Purvali said. "I think we should assume he has us located."

"I wrapped that up in thirteen minutes!"

"They identified the call faster than I thought they would. They may have gotten lucky. But I'd feel better if we acted on the assumption they're making an extra effort."

"Do you have any information on Avaming's whereabouts? Is there any danger I'll be calling him while he's indulging in a sybaritic lunch?"

"Possessor Avaming is currently riding with the Benjori Hunt. He's been riding with them every fourth day since he first started hunting. The hunt left the dock about half an hour ago. I'm looking at the Recording Secretary's log. The hound seals are tracking a swordbeak that just went below for the first time."

Sabor added the secretary's log to his display. He was looking at the same view the hunters were receiving—a real-time composite created from the sensors in the hunters' water suits. A direct transmission from the hunters' optic nerves would have presented him with a useless image of murky lake water. The composite transformed the darkness into a vision of hunters and hound seals slipping through water that was so clear they could have been sailing across a cloudless sky.

"The average chase lasts about an hour," Purvali said.

"And then there's the traditional social rituals after the return to the dock. I should be able to call him in about three hours, right?"

"Yes. There's a hunt lunch followed by a ceremonial closure."

"Then I suppose I may as well tend to a few business matters."

"Can you limit your efforts to activities that don't require long transmissions?"

"I'll pull in one last download and settle for whatever distraction it can offer me."

The hunting seals sped through the waters in a portion of his display which he located on the upper left quarter of his vision field. On the upper right quarter, images and numbers updated the situation on the north shore power delivery project. The trees and the incessant movement of the bird life provided an odd, clashing backdrop for both halves.

Five hundred thousand human beings now lived on Fernheim. In theory, they didn't need any kind of centralized power system. In theory, they

could have fulfilled all their needs with the solar power panels that roofed most of their homes. The panels would have powered their fabricators and their fabricators would have provided them with all the essentials a rational human could possibly need.

In practice, of course, very few people were satisfied with the basics. In the average Fernheim household, the fabricators were sucking up energy five times faster than the average solar installation could supply it. The champagne Sabor had stocked in his carrier would have used up several days of the average individual's solar consumption. A proper standard of living, by most people's standards, required a proper energy infrastructure, complete with large-scale hydrogen-fusion reactors, orbiting power satellites, and all the other sources of energy human ingenuity had developed.

And, of course, a network of cables and wires that would deliver the energy to all the needy individuals who would be reduced to champagne-deprived poverty without it. In some societies the network would have been constructed by a government. On Fernheim, so far, nobody seemed to be interested in the tedious bickering—or outright violence—that normally preceded the establishment of a central government. The North Shore Energy Matrix was an exercise in long term speculation. Ninety percent of the people in the lake community—45 percent of the population of the planet—lived on the south shore. The entrepreneurs behind the north shore project were assuming a power network would pull new arrivals and restless current residents to the unterrestrialized wilderness on the other side of the lake. The profits would come tomorrow, the big expenditures had to be paid today. Obviously, a competent, upright scion of a famous banking family had to wave his wand and place the necessary numbers in the appropriate accounts. And watch every move the North Shore Development Association made. In exactly the same way his mother would have.

He had been nine when his mother's personal assistant had given him his first overview of the family business. We are a profit-making enterprise, BanarJar had intoned. But we fill a social role. Bankers are the functionaries who allocate the capital resources of society. A progressive society must invest some of its resources in enterprises that increase its future wealth. We are the people who decide which enterprises will be cultivated. Governments can do that, too, but we operate under a socially valuable restraint: we forfeit some of our own wealth when we make bad decisions.

The hunting seals cornered the yellow-feathered swordbeak in a shallow cove near the south end of the lake. The meals-and-recreation charts on the North Shore display produced two numbers that looked as if they warranted a request for more information—a request he would transmit primarily as a reminder he was performing his fiduciary duties. The monotonous tramp of the widemounts carried them from the trees and birds in one section of the forest to the almost-identical trees and birds in another section.

Sabor's information system pipped. "You have a message from Heinrich Dobble."

"Display."

Heinrich's recorded image replaced the North Shore display. "I've been advised Colonel Jina has dispatched two helicopters in your direction, Sabor. They were one hundred kilometers southwest of his hangars about ten minutes ago."

"They could be close enough to start running a search pattern in about forty minutes," Purvali said. "They'll be operating at the limits of their range."

Sabor grimaced. "We are reminded once again of the hazards of assuming you can predict your adversary's intentions. Is there any possibility the second copter is carrying fuel?"

Purvali paused just long enough to let him know he had impressed her—a reaction that always evoked a spurt of ridiculously irrational masculine pleasure.

"It could be. Kenzan Khan could have hired one squad. And spent the savings on the copters."

She paused for another ten seconds. "The second copter can carry enough fuel to keep both of them in the area for seventy-two minutes maximum. They could stay longer, of course, if the tanker could find a spot to put down."

Sabor stared at the transmission from the scene of the hunt. Possibilities flooded through his brain. The helicopters couldn't hover above their location and drop Colonel Jina's staffers directly on top of them. The anti-material loads in their guns made that a foolhardy move. The ground troops would probably land a few hundred meters away and pursue them on foot. If one of the copters was a tanker, and it found a spot to set down, the copters could stay in the area and give the foot soldiers a mobility that could be decisive. . . .

"I'm beginning to feel my training in military tactics hasn't been as extensive as it should have been," Sabor said.

"They probably don't have our exact location," Purvali said. "They probably know where we are to within about thirty kilometers."

Sabor placed a small map on his right display area. The random movements dictated by the system had veered them closer to the Ratagava River. They were now about twenty-five kilometers from the river bank. Should they turn away from it? The widemounts could traverse the fords marked on the map, but they would be crossing a river that harbored some of the less pleasant representatives of the aboriginal fish and feather community.

He gave the system an order and it generated a course that took them almost due east—directly toward the river.

"We'll obey the fates one more time," Sabor said. "Colonel Jina may assume we'll be avoiding the rivers—going where he can't corner us against the river bank."

The security system picked up the two helicopters as the copters slipped across the forest from the northeast. Both machines seemed to be steering toward the center of the logical search area.

The widemounts had just begun their hourly rest period. Choy thought they should let the animals have a good feed and Sabor concurred. "They

won't be widening the search this far for another hour," Choy said. "It may be our last chance to give the animals a solid refueling."

Choy was scanning in one second bursts at random intervals spaced four to eight minutes apart. The system didn't register another blip until he made two more scans. The copter was just about where it should have been if it had been executing the search pattern Choy had predicted.

"They have to be refueling," Purvali said. "They couldn't be running that kind of pattern if they weren't refueling."

On the hunt display, the hunters were riding toward their dock with a piece of the swordbeak's flesh speared on each lance. The hunters had conducted their final, single-handed rushes at the swordbeak with a stately, ritualized formality, but the kill itself had been a blood-spattered fury of massed lance thrusts.

"It's going to take them another half hour to reach the dock," Purvali said. "Are you sure you can't contact Possessor Avaming now? Don't you think he may be very aware he was one of the people who didn't receive any applause when he made his final attack? Isn't it possible that might make him exceptionally receptive, Sabor?"

"It's too risky," Sabor said. "He could shut me off in a second if he decided he had to let me know I'm dealing with someone who truly understands style. I'd never get another chance."

The info from Choy's display appeared in front of Sabor. A helicopter symbol occupied the northeastern quadrant. A vector line indicated the copter was traveling in their direction.

"It's abandoned the search pattern," Choy said. "They've probably located us. Shall I keep the radar active?"

"We might as well stay informed."

They heard the rattle of the copter's engines when the display placed it about a kilometer behind them. It closed to a hundred meters and the symbol stopped advancing.

Choy had hung four cages on the side of his widemount. The top of one of the cages flipped up and a white bird flapped toward the treetops. Choy paused the bird just above the canopy, where its color would blend with the leaves, and copied its transmissions to Sabor's display. Three of Colonel Jina's hardbodies were executing a classic rope descent from the copter. A guard cat was being lowered in its harness.

"It looks like he's opted for a quick-victory, low-personnel budget," Purvali said. "Two copters. One eight man squad and six cats. Eight cats if you limit the squad to hardbodies—which would probably be the optimum configuration for a combat unit under these conditions."

"It should take them about five minutes to lower the soldiers and their cats," Choy said. "I'm placing five of our cats between them and us. The other three will watch our front and flanks."

Purvali added her consultant's edge to her voice. "I recommend we launch a counter attack. While they're vulnerable. I can go back and try for the copter. Our cats can attack them while they're unloading."

Sabor frowned at the display. The three hardbodies had already slipped beneath the canopy. A second guard cat tumbled out of the door and he watched it start its descent.

Purvali was the logical person to try a ground to air shot. Choy was the security expert, but he was operating the cats. And the rest of the security system.

"The copters have to operate together," Purvali said. "A hit on the troop hauler should drive both of them out of the area."

"Attack with the cats, Choy. All five. Try to do as much damage to their cats as you can. Don't waste effort on the humans."

"You can always negotiate for me afterward if I get unlucky," Purvali said. "You can't do anything if they capture you."

She had already picked up her weapon and raised the side of her carrier. Her feet were resting on the top step of the dismounting ladder.

"We won't get another opportunity like this, Sabor. We can't afford to waste it."

A third cat dropped out of the copter door. "If my estimate is correct," Purvali said, "they're going to deploy eight hardbodies and eight cats against eight cats and one financier with two assistants."

"Give them one burst," Sabor said. "Just one. And get back here."

Purvali dropped to the ground as if she had just been told she could run outside and play. The trees and the underbrush came between them before she had taken five steps.

Choy added an overhead map view to Sabor's display. Five blue cats were racing toward the area under the copter. There would be no feed from Purvali. They had to assume someone was sitting in the helicopter monitoring their transmissions.

Three red cat heads appeared on the display. Four red circles marked the positions occupied by the hardbodies who had reached the forest floor. Choy disregarded his instructions—quite rightly, Sabor realized—and directed two of his cats at the red circles. The cats couldn't attack the other team's cats if they were paralyzed by moles from the enemy guns.

Three of Choy's cats converged on one of the red cat heads. Slashing, snarling cartoon animals replaced the blue cat symbols.

Sabor had split the right side of his display top and bottom, with the map on the bottom and the image of the copter on top. The hardbodies on the ropes ripped their guns off their crossbelts as if they were conducting an exercise in simultaneous movement. They twisted around on their ropes and aimed their weapons one-handed. The muzzles were all pointed in the same general direction.

On the map view, a grinning cartoon cat clasped its hands over its head. The basic blue cat symbols replaced the cartoon and sped away from the landing site.

"We crippled one of their cats," Choy said. "I figured that was good enough. Run in, do some damage, get out before we lose anybody."

"Quite right. My sentiments exactly."

Something glistened on the upper half of the copter. Choy zoomed in. The side of the copter filled the upper half of Sabor's display. The metal seemed to be covered with a thin film.

"I think she hit a fuel tank," Choy said.

Choy pulled back the view. Cats were rolling out the door of the copter. Two hardbodies leaned over the side and grabbed at the ropes that were

already being used. The hardbodies who were already hanging on the ropes were still firing at the point they had selected.

Choy's cats formed a defensive line thirty meters behind the wide-mounts. Sabor twisted around on his pillows and peered into the forest. Purvali's carrier blocked a third of his view. Her widemount eyed him with bored indifference.

His mother had warned him. *Are you sure you should ask for a woman like that, Sabor? Remember—you are asking for someone who has all the qualities you find most attractive. You are asking for someone who will draw the maximum response from your own personality structure. You will be in control of the situation in one, very limited, sense. She will love you. She will want to please you. But can you control the emotions she will arouse?*

There had been times when his mother had contented herself with male concubines. For her, they had obviously been a respite from the masculine storm centers that normally diverted her. She would never have requisitioned a concubine who could engage her deepest hungers. Sabor's sisters seemed to feel the same way.

The side of Purvali's carrier swung up. She trotted around a tree with her gun held across her breasts and hopped onto the ladder.

"Did I do any damage? Could you see if I did any damage?"

Sabor's widemount swayed underneath him. Choy had started them moving again without waiting for instructions.

"We think you hit a fuel tank," Choy said. "They're dumping people and cats like the copter crew is very anxious to get out of here."

Sabor rose to his knees inside his carrier. "I told you one burst! You disobeyed me. You disobeyed a clear instruction."

"They couldn't see me. I had plenty of cover."

"They knew where you were. I could see it. They had every gun trained on the same position."

"They had a general idea. Just a general idea. I was surrounded by leaves."

"How many hits did your armor have to absorb?"

Purvali lowered her eyes.

"How many?"

"I quit when it told me it was approaching its limit."

"Two more hits! *Two more*. That's all it would have taken! *Two hits*. And you'd be in their power right now."

"I hit their fuel tank, Sabor. They're sending the copter back! We won't have to worry about airlifts and air attacks. I evaluated the situation and balanced the risks—the danger they might capture me versus the danger we'd be in if they kept the copters in the area. I was the one who was there. I could see I was in a good position."

Sabor returned his attention to his display. Purvali's pleading face disappeared behind the three segments of his montage. The scout bird was fluttering through the upper reaches of the trees and picking up glimpses of the force gathering behind them. Choy's map showed him the positions of their cats and the estimated positions of their adversaries.

The members of the Benjori Hunt were riding up to their home dock

with their mounts pressed into a tight, two-file formation. Four servants were waiting for them behind a table crowded with glasses and champagne bottles.

"I suspect an analysis of our situation may be in order," Sabor said. "How much time do we have before Colonel Jina's bravos wear down our defenses with their unsporting superior numbers?"

Purvali focused on the images floating in front of her eyes. Concentration nullified the emotions that had been playing across her face.

"Our rest stops are our biggest problem," Purvali said. "We can stay ahead of them indefinitely. But they can catch up at our rest stops. And whittle away our defenses. The big variable is Choy's maneuvers with the cats. And the kind of luck he has."

Sabor skimmed the report she had placed on his display. The wide-mounts were faster, but Colonel Jina's hardbodies had more endurance, and the feedback from the sensors indicated they had ended up with six armed men supported by seven cats. They could stay on the trail indefinitely, close the gap at each rest stop, and concentrate their extra numbers on one or two cats at each stop. They could launch a final, irresistible onslaught as soon as they eliminated three or four of the guard cats.

"Colonel Jina tends to be a thrifty tactician," Purvali said. "I think we can be confident he won't launch a direct attack on our moving fortresses until he's thinned out our cats. We have to make sure he understands we're willing to kill his cats, Choy. He has to know he's going to lose some valuable assets if he attacks us too early."

A new set of simulations raced across the display. A diamond representing a figure with a gun entered the fray. The diamond darted through the woods with all the speed a certain very familiar woman could muster. A note at the bottom of the display reported the results. In 527 simulations, the addition of the extra combatant had added three extra march periods, on average, to the length of time they could stave off the inevitable.

"And how many times did our little diamond get captured?" Sabor asked.

"Almost none. I can break off combat any time the odds get too rough."

"But will you, my dear? Will the real life, vulnerable human being always have the good sense to retreat?"

"You're fighting for your freedom, Sabor. For your control over your own mind."

"And how free will I be if they take you hostage? You may not believe it, but if Kenzan Khan gets you in his unpleasant clutches, he'll have all the influence over my actions he could possibly desire."

The hunters of the Benjori Hunt chattered and gestured as they downed their champagne and bundled off the pier. They isolated themselves in private changing rooms and entered their dockside banquet hall in ceremonial costumes that draped them in white and red.

Colonel Jina's hunters were much more businesslike. Choy was monitoring them electronically, with supplemental glimpses from his visual scouts. On the map on Sabor's display, the hardbodies steadily fell behind, but their speed never slackened. When Choy called for the first halt, the hardbodies were a little over one kilometer behind—about ten minutes'

marching time at their current speed. Choy deployed the cats in a defensive formation and Sabor watched the hardbody symbols move relentlessly forward.

"They're speeding up for the assault," Purvali said. "They're really driving themselves. Possessor Khan must be paying Colonel Jina something extra if the colonel's willing to inflict that kind of stress on his cadre."

The hardbodies and their cats followed the script predicted by Purvali's simulations. They concentrated three cats and four hardbodies on the cat at the extreme left of Choy's defensive line. Choy was faced with a classic dilemma. If the outnumbered cat held its position, it could be eliminated. If Choy pulled it back, the assault force could sweep around the flank and strike directly at the widemounts and their passengers. Choy responded by ordering two cats to the defense of the animal under attack. His other cats extended their line and took up defensive positions.

Sabor resisted the temptation to damp his stress reactions as he watched the tactical exhibition on his display. He knew he needed all the alertness his brain could muster. Visuals from the aerial scouts offered him flashes of the real life violence hidden under the symbols moving across the map. Cats leaped on other cats from ambush and disengaged after a flurry of bites and slashes. Hardbodies slipped through the forest with their guns, searching for targets.

Sabor's widemount was demolishing a bush that was covered with thick leaves and dangling pods. The other widemounts were gorging on the local vegetation with the same concentration. Choy had thoughtfully placed a time strip on the map display, so Sabor could see how many minutes they had to wait before the rest stop ended.

Sabor decided to intervene when the countdown reached ninety seconds. "I think we should go now, Choy—if you feel you're in a position in which disengagement looks feasible."

Sabor's widemount raised its head from the bush. A huge snort jostled its frame. It turned away from its chosen collation and lumbered toward its place behind Choy's mount.

On the map display, Choy conducted a fighting disengagement that drew a flurry of claps from Sabor's hands. Colonel Jina's cats abandoned the fight and settled into their walking pace the instant it became obvious they had done all the harm they could for the moment.

"Those people know what they're doing," Choy said. "They didn't waste a calorie."

"You're doing a rather impressive job yourself, Choy."

"We've got two cats that took a mauling. I may have to sacrifice one of them at the next stop."

The hunters of the Benjori Hunt were sampling the fruits and dessert wines that had been arranged along the table. The camera drifted down the hall and Sabor saw Avaming busying himself with his food while the women on both sides of him chatted with other partners. The hunters rose from their chairs with their glasses raised and the Recording Secretary terminated the transmission with an image of a waving banner.

"So what does Avaming do now?" Sabor said. "Go home and recuperate from his endeavors?"

"I'm afraid I can't help you," Purvali said. "He doesn't seem to have a regular post-hunt schedule."

"Then it obviously might be best if we assumed he's in a receptive mood. Will you advise his welcomer I've been talking to one of the better-known hunting coaches and I have some information that he may find of interest? Phrase it in your own irresistible style, of course."

Sabor's time strip clicked off the minutes while he waited for Avaming's reply to his call. The widemounts plodded through a complete, forty-five minute march segment. Purvali expressed her disgust at the "affectations" of an "outmoded class."

"He's taking about as long as I thought he would," Sabor said. "Money-lenders have to be treated with a certain condescension. We belong, after all, to a coterie that devotes most of its conscious hours to the pursuit of mere wealth."

Avaming's welcomer was an off-the-shelf female figure. She was so undistinguished Sabor was confident Avaming had spent hours searching for a design that would impress his callers with his total indifference to trivial matters such as the way his welcomer impressed his callers.

"Possessor Avaming has advised me he is now available, if you're still interested in talking to him."

"Please advise Possessor Avaming I'm still interested."

Sabor's widemount had once again settled its bulk in front of a large bush and started grinding leaves and branches between its molars. On the map display, the hardbodies were making another run at the defensive line Choy had formed with the cats. They had split into two groups. The larger group—three cats and five hardbodies—was driving toward the left flank of Choy's line. The other group was obviously supposed to harass the center and keep it occupied. It had been six minutes since Choy had called the rest stop.

Avaming had exchanged his ceremonial finery for a loosely belted lounging robe. He received Sabor's gift with a superbly aristocratic response: he recovered his control of his facial muscles seconds after he heard the news and he immediately offered to return the favor.

"That's a most generous gift," Avaming said. "I must admit you've quite taken me by surprise, Honored Sabor."

"It's our pleasure, Possessor."

"I hope there's something I can do for you. I would be embarrassed if there wasn't."

"There's no reason for you to be embarrassed. The opportunity happened to come to my attention and it seemed like the appropriate thing to do, given the fact that your deposits have made such an important contribution to the capital formation that keeps our planetary economy functioning. You and your colleagues have created a tradition that sets a high standard of courtesy."

"But there must be *some* way I can display my appreciation," Avaming said. "I realize the theorists are undoubtedly right. We large landowners will eventually be supplanted by the masters of capital, just as our counterparts were on Earth. But that day hasn't come yet. We still have some influence."

The three enemy cats had located one of Choy's mauled cats and ganged up on it. Choy inserted a transmission from the cat's optic nerve in the upper left corner of the map display. The cat rose to all fours seconds before three furies leaped across the bushy fallen tree it had been using for cover. The glistening black skin of the cat's assailants filled its visual field. Trees and sunlight rolled past its eyes as it tipped back its head in response to the wounds it was receiving.

Choy had placed another cat where it could act as a reserve. It popped out of its hiding place ten meters behind its doomed teammate and Choy switched to a direct transmission from its nervous system. Sabor peered through its eyes as it bored toward the heaving bodies in front of it. It lunged at the hindquarters of one of the enemy cats and apparently closed its jaws around part of a leg.

The display shifted to map-and-symbol mode. The symbol that represented the second cat broke contact and angled away from the fracas.

I think we should go, Choy transmitted.

Sabor's fingers danced across an imaginary keyboard. *Go*.

"As a matter of fact," Sabor said, "I have been thinking about a problem I have. I discovered your interest in the aquatic chase, in fact, when I was researching the problem."

"Feel free to tell me what you need."

"I believe you and Possessor Makajida have had some disagreements."

"You could say that. I think most impartial observers would inform you we're not on the most cordial of terms."

"As you may be aware, his military forces are somewhat smaller than normal at this moment. He has rented about fifty of them to another Possessor. It would be very helpful to me if you could place some of your military personnel on your southern border—enough that he would feel he had to bolster his own defenses."

Avaming smiled. "As I understand it, he's rented his soldiers to Kenzan Khan."

"That's my understanding, too."

"I can see how that could be of value to you, Honored Sabor. I've received two rather boastful messages from Kenzan."

The widemounts had trudged away from their feast and settled into line. The cats that had attacked the left flank were sweeping toward the widemounts unopposed. Had Choy realized the cats would move that fast when he had made his tactical calculations? Did he really think the widemounts could pull away from the cats before the cats closed in. . . ?

"As a matter of fact," Avaming said, "I've been thinking about conducting an alert exercise. There's no reason why it can't take place on my border with Possessor Makajida."

Avaming smiled again. "I would have to notify Possessor Makajida I was conducting an exercise, of course. I wouldn't want him to misunderstand my intentions."

Sabor smiled back. "That would certainly be the most prudent way to go about it. I hope you'll be able to schedule it soon."

"I'll get onto it as soon as we terminate this call. I gather it would be most helpful to you if it were done promptly."

"That could make a significant difference, Possessor."

"Consider it done. I'm only sorry you didn't ask for something that required more of my resources."

The enemy cats had dropped back to marching speed. The tactician on the other side had earned another burst of applause from Choy. The cats had aborted their attack at the first sign the widemounts were pulling ahead.

"Our widemounts have now lost six minutes of refueling time," Choy said. "Four this feeding period, almost two last period. I can't keep them moving at their maximum pace if they don't get a full feeding period soon."

"We have no idea how long Possessor Avaming is going to dally," Purvali said. "I can understand why you didn't want to give him any sense of the time constraints we're working with. But he could spend the next three hours wandering around his domains admiring his building projects."

"He said he would get on it as soon he terminated the call, Purvali. I'm inclined to think he will—given his personality structure. I should also note that we aren't the only combatants who are testing their limits. Our pursuers are driving themselves, too. As you yourself have advised me."

Sabor turned his attention to the material he had downloaded from the databanks. Now that they were being pursued on the ground, he could assume their pursuers knew where they were. He could transmit and receive without worrying about security. He could turn away from all the stresses and tensions of their situation—including the tensions Purvali was creating—and lose himself in profit projections, trading opportunities, brilliant-but-unworkable ideas for new projects, gossip that might tell him something about the character of possible customers, and all the other details that made his working life so endlessly fascinating. He had never understood people who thought "getting and spending" was an empty way to fill your days. The numbers and facts in his databanks absorbed him in the same way the interactions of individuals fascinated dramatists and the intricacies of natural systems fascinated ecologists.

He could probably claim, in fact, that he had a better understanding of human relationships than most of the creative minds who had tried to depict them. A dramatist's errors might be overlooked by some segments of the audience. His cost him real purchasing power.

He kept on working after they stopped for the next fueling period. He didn't call up Choy's displays until the halt had reached the five minute point. This time Choy deliberately left one flank wide open. Choy's opposite number committed his forces to an all out attack on that side and Choy responded with a precisely timed counterattack. Three of Choy's remaining cats threw themselves into a melee in which they were hopelessly outnumbered. Choy lost one cat, but he achieved his immediate objective. The widemounts placidly completed a full fifteen minute feeding.

"Quite good, Choy," Sabor said. "You had that timed to the second."

He waited for a nag from Purvali, but she apparently decided to fume in silence.

Choy now had six cats left. He grouped four in a loose formation in the

center the next time they stopped. The other two were positioned further out, one on each flank.

The opposition came in fast, in an attack that seemed to be spread across Choy's entire front. Then, just when Sabor thought they were committed to a straightforward linear assault, they behaved like the kind of highly trained, purpose-shaped soldiers they were. Four hardbodies and four cats coalesced into a compact mass and started a wide swing around Choy's right flank.

Choy responded by detaching two cats from his central formation. They joined forces with the cat he had placed on the right flank, and the three animals raced toward an intersection with the assault party.

"I need a decision," Choy said. "I can put up a strong fight when they make contact, gain us three or four extra minutes of feeding time, and probably lose one cat. Or I can put up a weak fight, hold them off just long enough for us to get moving, and probably save all the cats."

Sabor scowled. The widemounts had accumulated about eight minutes of browsing time.

"Recommendation?" Sabor said.

"I can't make any," Choy said.

"Light resistance."

It was a random decision. He said the first thing that popped into his head and hoped he could live with it. Choy started the widemounts moving, Choy's cats engaged in a brief flurry of action—and a shot from a hardbody reduced one of the cats to a set of rigid, totally paralyzed muscles. They had sacrificed several minutes of feeding time and lost a cat, too.

"Not my most brilliant decision," Sabor said.

"I'm sorry," Choy said. "I thought I could save the cats."

"You're working with percentages, Choy. You make your bet and accept the results."

He returned his primary focus to the databanks, but it had become a pointless exercise. Information flowed across his brain like water washing across a stone floor. Nothing penetrated.

They were down to five cats. The next feeding period could be the last. Choy might be able to stave off a breakthrough one more time, but it was a fifty-fifty proposition—at best.

A blinking prompt advised him Purvali's carrier had come open. He ordered it closed and received an immediate *not responding*.

"You seem to have a problem with your carrier, Purvali."

"You have two options, Sabor. You can give Choy permission to integrate me into his tactical schemes or you can make me fight on my own."

"Please remove the pillow or whatever it is you're using to jam your carrier open. I've already given you my decision."

"And how are you going to stop me? I can drop off this animal and be lost in the trees before you or Choy can touch the ground."

He could give her an order, of course. But would she obey it? He had asked her designers for a concubine, not a robot. He had her loyalty and her devotion. For machine-like obedience he would have to console himself with the companionship of machines.

"Don't do this to me, Purvali. Please."

"You're rolling the dice, Sabor. That isn't good enough. Not when your survival is at stake."

"I have been running simulations," Choy said. "I have a suggestion you may find worthy of consideration, Sabor."

"I would be a fool if I didn't consider your suggestions, Choy."

"The simulations indicate we could probably lethal two or three of their cats at the next rest stop if I employed Purvali as a surprise ambusher. The risk to her would be minimal. She would only have to expose herself for a few seconds—just long enough to fire at their cats when I told her to."

"Look at the simulations," Purvali said. "Just look at the simulations."

"Show me the simulations, Choy."

A summary popped onto Sabor's display. Choy's program had run five hundred simulations. They had killed one cat in 27 percent of the simulations, two in 54 percent, three in 13 percent, and none in 6 percent. There had been no simulation in which Purvali had been captured or injured.

The display zipped through a random selection of quick-play runs that included samples with all four outcomes. Choy had conscientiously included all the unknowns he and the program would have to work with during a real attack. There would be important blanks, for example, in Choy's knowledge of the terrain. He wouldn't know the location of every tree trunk and the sight lines it would interrupt.

"An impartial observer might note that you've left out one important factor," Sabor said. "You're assuming Purvali will obey your orders with scrupulous precision. If you included the possibility she might dally for a few seconds before she retreated—in the hope that she might be able to kill two of their cats instead of just one, for example—the outcomes of some of those simulations might have been less acceptable."

"You are running out of time," Purvali said. "You'd be running out of time even if Possessor Avaming called you right now and told you he's kept his word. How long will it be before Possessor Makajida reacts to the news he has a hostile force threatening his borders? It could take him hours, Sabor."

Sabor eliminated Purvali's face from his display. He scowled at a block of text that summarized the current financial status of the second largest mobile submarine restaurant on the lake.

"Whatever happens," Sabor said, "I'm obviously not going to have any peace until I let you prance around the forest. Take care of her, Choy."

He watched her as she made her preparations. She fired her gun at a passing tree. She recharged her armored coat. She slipped into a relaxed meditation state and gave herself a half hour nap.

She dropped to the ground as soon as Choy brought the widemounts to a halt. Choy positioned her on the left flank and removed her symbol from the map display. Choy would track her movements with his memory. There would be no possibility the opposition could pick up a stray transmission.

Sabor raised the side of his carrier. Cold air bit at his cheeks. He couldn't

watch Purvali's movements on the display, but Choy furnished an explosion graphic when she shot the cat that was leading the assault on the left side. Another graphic announced a hit on a second cat. Choy transmitted a command and the widemounts backed away from their food sources.

Purvali raced out of the woods with her eyes focused on her goal. She leaped for her mounting ladder when she was a full stride away from her widemount. She pulled a pillow into position and lowered the side of the carrier as she rolled inside.

Sabor jumped away from the tree he had been using as a cover. He grabbed the pillow and threw it at the ground. A command shot out of his brain. The lock on the carrier returned the appropriate signal.

He ran to his own widemount without waiting for Purvali's response. On the display, the hardbodies called off their attack and let the widemounts widen the gap once again.

Sabor switched to the view from his rear camera. Purvali had folded her arms across her breasts. She was staring silently at the back of her widemount's head.

Sabor's system pipped. Possessor Avaming's stock welcomer replaced Sabor's pouting paramour.

"Possessor Avaming has asked me to inform you he has deployed thirty of his security personnel on the border he shares with Possessor Makajida. He has advised Possessor Makajida of his actions."

"Please convey my thanks to Possessor Avaming," Sabor said. "Please let him know I deeply appreciate his kindness."

He gave his system another order and it immediately put him in contact with a more ostentatious image—the muscular, thickly robed flesh-and-blood human male who served as Possessor Dobryani's welcomer.

"Good afternoon, Financier Sabor. May I ask your business?"

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"I have some intelligence I would like you to convey to Possessor Dobryani. Please tell her I have reason to believe Possessor Kenzan Khan is about to lose the services of the fifty soldiers he is currently renting from Possessor Makajida."

Wrinkles creased the welcomer's square, manly forehead. "Is there any way Possessor Dobryani can verify this information?"

"I could give her the names of other people she should query, but I think it would be best if I didn't. I suggest that she prepare to act on this development—if she wishes to act on it—and watch for evidence it is taking place."

The welcomer frowned again. Sabor could visualize the turmoil in his mind. This was not, obviously, a routine call from a routine caller.

The welcomer decided a terse nod would be the appropriate physical response. "I will advise her at once."

"I suggest you give the message your highest priority."

"I will include your request with my transmission, Financier."

Purvali had removed a scarf from her luggage and wrapped it around her head. Her hidden face and her straight body communicated the same message kilometer after kilometer, without a single change in her position, every time Sabor popped her image onto his display.

"You have a realtime call from Colonel Jina," Sabor's system announced.

Sabor glanced at his time strip. It had been forty-one minutes since Avaming had announced he was deploying his troops. "That could be interesting. Put the good colonel on. Copy to Choy and Purvali."

Colonel Jina flashed his unforgettable smile. "Good afternoon, Sabor. We're having a busy day, aren't we?"

"It's always good to stay active, Colonel. What can I do for you?"

"I've been keeping track of the time you've devoted to rest stops. We will be resolving this situation the next time you're forced to stop for a feeding session—in about twenty minutes, by my calculation. You don't have enough cats to counter another assault and your widemounts don't have enough energy to outrun us."

"My assistant Choytang is in charge of our logistics. But I believe twenty minutes is a reasonable estimate."

"Kenzan Khan is determined to take you prisoner and acquire total control of your assets. It seems to me there should be some room for compromise. If you were to forgive all his current debts, for example, he would be in a position to borrow more capital from you and maintain the forces he needs to pursue his conflict with Possessor Dobryani. I would be happy to convey such an offer to him."

"Doesn't that create some conflict with your professional ethics, Colonel?"

"I have several assets at risk. I would rather not lose them in an avoidable assault."

"They are all replaceable."

"But replacement takes time. And time has a financial value. As you, of all people, should know. The proposal I am making would be in everyone's interest, Honored Sabor."

"I have to think about time, too—the long term consequences. I would

still be surrendering to extortion. I would be encouraging all the other ruffians who would find such actions appealing."

"It seems to me this wouldn't be the first time you have yielded to the threat of violence. You and your colleagues have consistently bestowed large loans and special rates on the more powerful possessors."

"No possessor has ever attempted anything this blatant. If we're going to discuss our mutual interests, it seems to me it would be in your interest to advise Kenzan Khan you aren't going to fulfill his contract. Your business, Colonel—like all businesses—depends on a system for an orderly transfer of payments. In most societies, that infrastructure normally rests on the rule of law. We have not established such a rule here and we are therefore dependent on other means. But that doesn't mean you can live without the infrastructure."

"You are going to be taken. You will be captured. Your concubine and your assistant will be captured. You will be taken to Possessor Khan. Your minds and all your assets will fall under his control."

Sabor's fingers tapped out a silent message to Choy. *What's the maximum time you can keep the widemounts moving?*

Thirty-three minutes.

Do it. Postpone the next stop for as long as you can.

"Kenzan Khan is endangering a key social structure, Colonel. Do you really want to live on a planet in which the banking system can be corrupted by anyone who controls enough soldiers?"

"I can only interpret that statement as the plea of a desperate man, Honored Sabor. You may call me any time you wish to discuss my offer."

The colonel's image vanished. Purvali's image leaped into the center of Sabor's visual field.

"It's settled," Sabor said. "I will not give Kenzan some kind of compromise. There will be no end to his demands if I do that."

He cut Purvali out of his display and started recording a message for Possessor Dobryani. "This is a follow up to the message I left with your welcomer, Possessor Dobryani. If you launch an attack on Possessor Khan's forces within the next forty minutes, I will reimburse you for the cost of any losses you sustain. The reimbursement will be based on the cost of an accelerated replacement at the fastest possible tempo."

A blinking light on the edge of his display announced a text message from Purvali. *I presume we can at least drape our widemounts in their armored blankets?*

The armored blankets had been rolled into telescoping cylinders and attached to the carriers. The cylinders would extend fore and aft on command and the widemount would be sandwiched between two blankets that extended along its sides from head to tail. The blankets would interfere with the widemounts' side vision and general maneuverability, but their smiling adversary had made it clear they had to reorder their priorities.

"We'll lower the blankets when we make our rest stop," Sabor said. "Sooner if it looks like they're attacking the widemounts."

And how about me? I'm going to have a few problems shooting at our adversaries if you keep me locked inside my boudoir.

"We'll deal with that when the time comes."

You are being irrational, Sabor. Do you really think you'd be doing me a favor if you kept me alive just so I could spend the rest of my life as one of Possessor Khan's harem bodies?

"You have a real time call from Counselor Tarakelna."

"Put her on."

Counselor Tarakelna was the member of Dobryani's staff who handled most of her financial negotiations. She greeted him with her usual controlled, carefully measured smile, and Sabor responded with his best simulation of his normal business façade.

"Possessor Dobryani examined your last offer, Sabor. She feels you're offering her a minor return on a major risk. You are asking her to attack before she is certain Possessor Kenzan Khan has lost his extra forces."

"I can assure you those forces are going to be returned to their owner. It should happen at any minute. If Possessor Dobryani accepts my suggestion, she will have soldiers in position, in Kenzan Khan's territory, when it happens."

"Possessor Dobryani believes the risk/reward ratio is higher than it should be. She feels a complete cancellation of 20 percent of her debt load would be more logical."

"Possessor Dobryani has been granted a major opportunity, Counselor. We both know it would be to her advantage to seize it."

"Possessor Dobryani fully understands the value of your information. But she feels she can take full advantage of it after she is certain Possessor Khan has lost control of his extra troops."

Sabor nodded. "I've been looking at her account data while we talk. You can tell her I can offer her a nine tenday stretchout—ninety days, starting now, with no payments of interest or principal."

Counselor Tarakelna frowned. She studied Sabor's face and he looked back at her blandly.

"I will advise the Possessor of your offer," Counselor Tarakelna said.

Sabor ordered the blankets dropped as soon as they settled into their next feeding stop. Choy formed the three passenger widemounts into a defensive triangle, with the cargo widemount positioned about thirty meters outside the triangle.

This time, Colonel Jina's emissaries slipped into a dispersed formation. Three of the hardbodies and two of the cats disappeared from the display. Elongated ovals indicated their estimated positions.

A text message from Choy flickered across the map display. *I am releasing all my reconnaissance birds. I gather I should consider this our last stand.*

"Pull out all the stops," Sabor said. "Maximum effort. Do or die."

Birds whirled out of Choy's cages. Symbols lit up on the map display. The hardbodies and their cats had formed a wide arc about seventy meters from Choy's triangle.

"I am being attacked by anti-material molecular missiles," Sabor's carrier announced. "My armor is responding."

"Our carriers' shells will dissolve in about ten minutes," Choy said. "We should counter-attack sometime before then. While our personal armor is still at maximum."

"Can we attack on the widemounts?"

"For a few minutes. They still have some short-term energy reserves."

"Hold off for as long as you can. Colonel Jina is obviously taking his time. The longer he takes, the better for us."

The display monitored the effect of the invisible rain falling on the carrier shells. The widemounts munched on whatever nourishment they could scavenge from their immediate surroundings. Choy's cats formed a tight formation between the widemounts and the snipers in the trees. Sabor shifted his attention between the display and the real world and tried to spot the hardbodies when they broke cover and fired.

"We have to get very physical when we attack," Choy said. "We have to break bones. We can't possibly overwhelm their armor before they overwhelm ours."

"I understand," Sabor said. "Try to avoid killing and irreversible damage. We'll leave that possibility in reserve—as a retaliatory threat if Colonel Jina starts thinking you and our female companion are expendable."

"Get ready to move out. Our carrier shells will dissolve in about one minute."

Sabor's widemount shifted out of the triangle. The three passenger widemounts formed a rough line and lurched toward the left end of the hardbody line.

"I'm going to attack the two snipers on the far left," Choy said. "The widemounts are our primary weapon. Concentrate on keeping low."

Sabor's carrier shell disappeared. A fog of fine particles blurred his image of the forest before the remains of the shell dispersed. Dishes and pillows slid off the platform that had formed the foundation of the shell. He stretched out flat on the platform, with a pillow between his head and the hardbodies, and noted that Purvali had acted like a sane human for once and engaged in the same maneuver.

Cats charged out of the trees. The three cats they had left screamed as they received the attack. A cat leaped at the head of Choy's widemount. Claws ripped bloody gashes in the widemount's skin. Choy raised his gun and fired into the animal's mouth.

Purvali yelled. Sabor turned his head and saw another cat pulling itself onto the back of Choy's mount. His hands reacted while his consciousness was still assimilating the situation. Four shots streamed into the cat. It reared on its hind legs, with its front claws reaching for Choy's head, and slid off the platform.

A command flashed out of Sabor's brain. His information system dispatched a message to Colonel Jina.

"We are avoiding inflicting irreversible damage on your expensive assets, Colonel. I would appreciate it you would render my assistants the same courtesy."

He had been bargaining and haggling all his life. The process apparently continued when you switched to non-monetary situations.

Choy's platform rose half a meter. Sabor turned his head and realized his own widemount was sinking. He checked his display and discovered the widemount's armor had been overwhelmed. The hardbodies had apparently been concentrating their fire on their ultimate objective.

"Get on my platform," Choy said. "The extra widemount is right behind us. We'll continue the attack."

Sabor scrambled onto Choy's platform. He checked his personal armor and discovered he had only absorbed two hits. He had kept his head and stayed low when he had fired at the cat attacking Choy.

"This is rather exhilarating," Sabor said. "Isn't there some saying about war being the continuation of diplomacy by other means? Should we assume the same maxim can be applied to financial activities?"

They were now about five paces from the point they had been driving toward. The two hardbodies in front of them were holding their position and pouring moles into the four-legged fortresses bearing down on their position. On the display, symbols marked the places where the other hardbodies were firing from Sabor's right.

The fourth widemount pushed into the gap created by the loss of Sabor's animal. Choy gestured at its back and Sabor slid off Choy's widemount and flattened himself on top of the bin that hung from the cargo animal's side. His right hand tightened around a braided cable.

"You have a message from Heinrich Dobble."

"Run it."

Heinrich's image rose between Sabor and the action at the front of Sabor's visual field. "Dobryani has crossed the border, Sabor. My sources advise me she has forty soldiers advancing through Kenzan's possession."

Sabor reacted without missing a breath. "Message for Financier Zara Nev. Apply simulation seven. Text: I believe it would be in your best interest to reconsider your position and join our common stand against Kenzan Khan's attempt at extortion. Kenzan is doomed. Possessor Dobryani has taken advantage of Kenzan's current weakness and invaded his possession. She is not in a negotiating frame of mind. The total destruction of Kenzan's financial position is the most likely outcome."

Simulation seven was Sabor's cheeriest, brightest communications façade. He usually used it when he distributed invitations to informal gatherings.

Choy forced the three widemounts into a trot—a move that would probably drain any spare energy they still had left in their reservoirs. The two hardbodies started to fall back, but they had waited too long. Choy and Purvali edged ahead of Sabor. Their widemounts lowered their heads. Broad skulls shoved against the two hardbodies. Choy and Purvali slid to the ground and leaped like a pair of dancers. They pulled themselves back on their widemounts—they couldn't have spent more than ten seconds on the ground—and Sabor stared at the two figures writhing in the organic debris that covered the forest floor. Both hardbodies had legs that had acquired an extra joint. Their weapons had been tossed into the trees.

Sabor's widemount ripped a mass of leaves and blossoms from the lowest branch of a flowering tree. Sabor could feel its back trembling underneath him. The other widemounts had become as motionless as mounds of dirt.

Five symbols raced across the map display. Jina's human staffers had broken cover and initiated their final assault.

Purvali and Choy jumped off their widemounts. "Use everything you've got, Purvali," Sabor said. "There's little point in trying to conceal your potential now. But please abide by the rules of engagement. No permanent damage."

He crawled onto the back of his widemount and fired half a dozen moles at one of the oncoming hardbodies. Purvali and Choy had dropped into on-guard crouches below him. The hardbodies were veering around trees and sailing over obstacles with a controlled, absolute silence that was a thousand times more unnerving than a chorus of battle cries.

The hardbodies could have split their forces. Two could have gone after Sabor while the rest tried to keep Choy and Purvali occupied. Sabor could have held off his assailants for a few seconds while his dedicated staff demonstrated their ability to deal with three-to-two odds, and the three of them could then have joined forces and completed a final rout of Colonel Jina's minions. Instead, the hardbodies clumped into a line as they approached the widemount and the entire group converged on Choy and Purvali. Jina's tactician had apparently gained some respect for the abilities Sabor's assistants brought into the arena.

Purvali's upper body swayed. She stepped toward an oncoming hardbody and made a small movement to her left. The hardbody twisted to follow her, she made another small movement—and suddenly she was positioned *behind* the hardbody, with her body leaning backward and the bottom of her foot slamming into his kidney.

Sabor had seen her make moves like that during training sessions. In actual combat, the spectacle had a power that transcended the excitement evoked by the kind of speed and grace her hyped-up physiology could attain.

His awe turned into horror within seconds. Purvali hooked her foot around the stunned hardbody's ankle and pulled him to the ground. She leaped half her height straight up and came down on his back. She kicked downward as she landed and hit him with the maximum impact. It was a lethal blow—an attack that would drive splintered bones into the heart directly under her heel. The shock wave forced through the hardbody's chest would probably rupture the heart if the puncture wounds didn't do the job.

Choy was defending himself against two hardbodies. One of his attackers jumped back and disengaged. Three silent demons turned on Purvali.

Sabor didn't need a message from Colonel Jina to advise him the rules had changed. He could see it in the way the three hardbodies held their hands as they closed. Purvali was fast and she was stronger than the curves of her body and the silkiness of her skin indicated. But she couldn't survive an attack from three purpose-nurtured soldiers who had decided they could remove an obstacle without fretting about the damage they inflicted on it.

Sabor wedged his gun between a pair of cargo bins. He rose to a crouch and jumped, feet first, on the hardbody who was slipping behind Purvali's back.

It was an impulsive act, but his body knew what it had to do. His boots slammed into the hardbody's helmet. His target shied away from him as

the blow hit and he threw out his arms and grabbed at anything he could get his hands on.

His fingers dug into the hardbody's uniform. His left heel pounded on the hardbody's foot. It was a weak effort, but it did the job. The odds against Purvali were reduced to two to one. It was only a momentary respite, but it could be all Purvali needed.

Unfortunately, the hardbodies immediately realized he had placed their true objective in reach. The hardbody facing Choy abandoned his opponent and danced toward Sabor. The other two hardbodies slipped around Purvali. A hardbody twisted Sabor's arm behind his back. Three hardbodies formed a wall in front of him.

Sabor jerked his head toward Choy. *"Stop her. Don't let her attack. They'll kill her."*

Choy stepped behind Purvali. He gripped her wrist and trapped her in the same kind of hold the hardbody was using on Sabor. Purvali tensed and then let herself relax.

"You'll just get yourself killed," Sabor said. "And I'll still be a prisoner."

"It's the only hope you have, Sabor. Why couldn't you stay out of it? We could have handled them."

The pain in Sabor's arm suddenly disappeared. The four hardbodies moved before his brain could adjust to the change in his situation. Choy tried to defend Purvali and a hardbody stepped behind him.

Colonel Jina smiled out of Sabor's display. "Good afternoon, Honored Sabor. We seem to have a change in the fortunes of war. Possessor Dobryani has occupied Possessor Khan's personal abode. It is now obvious Possessor Khan can no longer fulfill his contractual obligations."

"You've been a formidable opponent, Colonel. I'll be certain to recommend your services in the future."

"Your associate destroyed one of my most valuable capital assets. In spite of our agreement not to exceed certain limits."

"I'm afraid she has a tendency to become overzealous."

"I understand, Honored Sabor. Our relationships with the other sex can become difficult to control, in spite of our best efforts. But I think I'm entitled to some reasonable compensation."

"How much did you have in mind?"

Purvali straightened up. "Don't be a fool, Sabor! Pay him a ransom and you'll have to defend me against every hoodlum on the planet."

"We're not discussing a ransom," Sabor said. "He's asking me for compensation for the soldier you killed."

"He was trying to destroy you. They would have succeeded if I hadn't done that."

"She managed to destroy my asset because we were exercising restraint," Colonel Jina said. "We would have killed her before that if we hadn't accepted your bargain."

Data flowed across Sabor's vision. A hardbody could be replaced in approximately eleven standard years at a total cost of four hundred and sixty thousand Fernheim neils. Colonel Jina's estimated cash flow indicated each hardbody generated approximately fifty-four thousand neils per standard year. The lifetime of the hardbody was, of course, unknown, but

one could estimate the cost of the maintenance required over an eleven year period and that, obviously, should be subtracted from the total cash flow. . . .

"I can offer you one million, four thousand neils," Sabor said.

"I believe you are underestimating the loss of business I may suffer. Every contract requires a carefully calculated number of personnel. If I need five hardbodies for one assignment, for example, and three for another, and I only have seven, I may be forced to refuse one of the assignments. According to my figures, I should ask you for at least one million, two hundred and fifty thousand."

Sabor studied the numbers the colonel presented him. "I really must point out that you're overlooking the interest you'll be earning each year on the unused portion. Your figure for lost employment seems a bit inflated, too, if you don't mind my saying so. But I'll offer you another hundred thousand anyway."

The colonel frowned. Sabor concentrated on the colonel's calculations and carefully avoided looking at Purvali.

"One million, one hundred and seventy-five," the colonel said.

Sabor hesitated. It was a large sum. His mother would have haggled for another hour just to keep a few more thousand.

"It's getting late," Sabor said. "If you'll agree to keep the whole sum in your account with my institution until it's paid out, I'll consider the extra hundred and seventy-one thousand a small honorarium to a valued customer."

The hardbodies released Purvali and stepped back. Sabor gave his system a signal and one million, one hundred and seventy-five thousand neils jumped into Colonel Jina's account.

Colonel Jina beamed. "What other bank would I patronize?"

Sabor crossed the distance that separated him from his concubine. He put his arms around Purvali and felt her soften at his touch.

"You're a fool, Sabor."

She said the same thing again after they had struggled back to the guest quarters in the Galawar Commune and he had proved to his satisfaction (and hers, by all the signs) that he had successfully discarded his warrior mode.

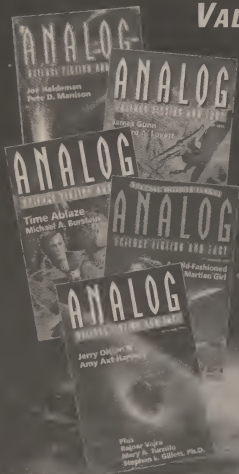
"Is there any possibility," Sabor responded, "just the slightest possibility, you will ever realize you mean just as much to me as I mean to you? That you ignite—in me—exactly the same kind of feelings I provoke in you?"

"But I was designed to feel that way, Sabor. You have choices."

"Somehow, my dove, I never seem to feel I have a choice. And I am quite confident—annoyingly confident—I can offer you some assurance I never will feel I have a choice. *Never*. Not ever."

She would never fully believe him, of course. He could glance at her face and see that. But she was there. She was alive. His hand was resting on her stomach. His display was running projections of the demand/profit curve for the line of crabs the Galawar Commune was bidding on, assuming the most plausible ranges of the six most relevant variables. Sabor Haveri was focusing his attention on his two major interests. ○

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NEW WORLDS

edited by Michael Moorcock

Thunder's Mouth Press, \$18.95

ISBN: 1568583176

A while back, I was pondering when there would be a new literary "Movement" with a definite capital M within science fiction or, to be expansive about it, within the expanded literary universe of speculative fiction.

The last one was "Cyberpunk," and that was something like two decades ago—a Movement of the second kind, if you will, the earlier "New Wave" being a Movement of the first kind. In those days, there was much critical and theoretical attention paid to just what Cyberpunk was, no little of it written by myself,

and much of it by Bruce Sterling, without any lasting definitive conclusion being reached. But for present purposes, let us at least agree that it was a Movement initially defined by content alone.

The novel that started it all was William Gibson's *Neuromancer*, wherein he coined the phrase "The street finds its own uses." What this meant was that outlaws, the underground, revolutionaries, whatever counterculture might exist, would or should use cutting edge technology for its own illicit, illegal, or revolutionary purposes.

At the time, in the backwash of the expiring Counterculture with a definite capital C, this was a revolutionary notion, both within the SF microcosm and the cultural macrocosm. Thanks to several things, but chiefly the Viet Nam War, the "underground," the "counterculture"—call it what you will—of those bygone days was relentlessly technophobic, science and technology being seen as the tools of the fascist Establishment, weapons of the Pentagon and the political right, and its champions "pigs" at the worst, "nerds" when merely deluded.

That much of this was expressed via a musical form that could not exist without electric guitars, synthesizers, and amplifiers, was overlooked. For, as Gordon Dickson had observed earlier, every culture, countercultures included, has cultural blindnesses, which they may even require in order to continue to exist at all.

The literature of speculative fic-

tion and the subculture accreted around it was as deeply and passionately split as the political and cultural macrocosm. The technophobic countercultural left regarded the technophilic traditional hard science fiction and its practitioners as right wing crypto-fascist, and the Old Guard regarded the Young Turks as drug-addled Luddite hippies verging on out-and-out commies.

The Cyberpunks, though, were technophilic, politically left, countercultural outlaws.

That was the punk of it and that was revolutionary.

The Cyber of it was perhaps by chance. Gibson's novel, the flagship that launched the Movement, was centered on the technology of the internet and the web before that technology actually existed, even though, as he once confessed to me, he knew very little about actual computers and wrote the whole thing on a manual typewriter.

Bruce Sterling, not Gibson, swiftly became the main guru and theoretician of the Cyberpunk Movement, and curiously enough, did not write what he preached in his own novels until quite recently. Gibson, Sterling, and Rudy Rucker and Pat Cadigan, who became major Cyberpunk figures, might have been cultural revolutionaries in a certain sense, but were never political in a conventional sense, though John Shirley was.

Then a couple of cabana boys (I am not making this up) latched onto a quarter of a mil of a rich dentist's money, spent one hundred thousand dollars buying the rights to *Neuromancer* for a film that never got made, and the rest of the money on professional PR promoting "Cyberpunk," and the rest is marketing history. Cyberpunk became co-opted into a generic brand to sell every-

thing from rock groups to high-end sneakers, just as "Sympathy for the Devil" and "Blowin' in the Wind" have long since been remixed into politically caponized elevator Muzak and a recent Shell Oil commercial has co-opted the Summer of Love into a signature for its greener-than-thou solar electricity program.

Thus Cyberpunk—a science fictional literary movement based on content and theme, with no regard one way or another for literary angle of attack, form, or prose style, transmogriable, therefore, into marketing iconography.

Sic transit gloria mundi.

A Movement of the second kind.

To see what I mean by a Movement of the first kind, have a look at *New Worlds*, a retrospective anthology of stories, poetry, essays, and criticism, edited by Michael Moorcock, editor of the British magazine of the same name through many incarnations, and with a memoir-cum-history of the whole strange trip to date by Moorcock himself.

This book is, well, staggering. There has never been anything like it. Because there has never been anything like *New Worlds*, the magazine, or the movement that it spawned, championed, and molded, before or since, and certainly not within the realm of science fiction. Moorcock has delivered up a perfect, if hardly complete, sample of what the so-called "New Wave" was about, along with his masterful, gossipy, ruthlessly honest, and occasionally catty global overview. Even I, who was a significant figure in the story, thanks to the six-part serialization *Bug Jack Barron* in *New Worlds*, was poleaxed to be reminded of who Moorcock had published when and what they had written and, yes, drawn and painted.

J.G. Ballard's "condensed novels,"

the short stories which made his transition from an author of merely excellent SF disaster novels into the major stylist, formalist, and literary figure he is today. Early poetry by D.M. Thomas. Brian Aldiss' stylistically revolutionary Acid Head War stories, collected in the Lysergically Joycean, metaphysically Gurdjieffian novel *Barefoot in the Head*. Mervyn Peake when he was languishing in obscurity. The first art by Escher ever to appear in an English-language publication. Dick, Brunner, Ellison, Delany. Thomas M. Disch's *Camp Concentration*. The early stories of M. John Harrison, John T. Sladek, James Sallis. Apparently the very first Gene Wolfe story ever to be published. The Jerry Cornelius Cycle. Art criticism. Literary criticism by John Clute and diverse hands including Moorcock, and even Ballard on *Mein Kampf*.

On and on and on.

Obviously not all of the above could be included in the anthology. Moorcock apologizes in some detail for what and who isn't, and, amusingly and amazingly enough, even admits to publishing a few things really not to his own personal taste as a reader, as a sigil of the catholicity of his and beyond his—the magazine's and the movement's—literary intent.

And *New Worlds*, Moorcock, and the literary movement in question, did have a literary as well as a cultural intent, a mission so enormous that it could never have been realized in its entirety.

Moorcock himself describes it at greater length and in finer detail in his introduction, and probably better, too than I can do here. So, briefly and simply, Moorcock and the rest of us believed that the cleavage between so-called "serious literary fiction" and so-called "popular fiction," even greater in Britain with Leavis's

official "canon" than in the United States, was not only artificial and false, but detrimental to both. What had been popular fiction in the mode of Dickens and Hemingway and Melville was degenerating into empty genre formula, and serious literary fiction had lost its appeal to general readers thanks to deconstructionism, slavishness to academic formal norms, a disinterest in telling real stories, and a loss of the courage to tackle the great themes and questions of the age.

Or, as I said somewhere, "science fiction treats the great issues in a trivial manner, while so-called serious literature applies its great literary powers to the contemplation of the lint in its own navel."

Little, unfortunately, has changed in so-called serious mainstream literature between then and now, but it is hard for the reader of today to understand what science fiction was like at the turn of the 1960s. Science fiction was regarded by publishers and librarians as "Young Adult Fiction." The critical contention in the genre at the time was that it should be written in "transparent prose"—that is, "style free" prose that disappeared from the reader's consciousness entirely in order to convey the events of the plot in clear simple terms, à la literary television. It could not be specifically or passionately political, not engage. No four-letter words. No sexual description.

To see what I mean, you could read *Bug Jack Barron*, which has just been reissued thirty-five years later, and try to imagine in a present context why it was excoriated as perverted and degenerate in 1968, when it was a cause célèbre. I doubt if you would find anything particularly shocking now, except, perhaps, the prose style.

All this *New Worlds* set out to change, by publishing fiction open to stylistic experimentation, and freed from any taboos as to content. Moorcock also had a theory about the uses of prose itself, too complex to go too deeply into here or even in his introduction to the anthology. Briefly, rather than being confined to "transparent" narration of the surface phenomenology of the story, the prose line could skip allusively along its surface or swim in the iconographic and archetypal imagery beneath it, rather in the manner of poetry. Which perhaps was why the magazine paid serious attention to serious poetry, too.

Since *New Worlds* began as a science fiction magazine and the writers in question mostly began as "science fiction writers," the fusion between "serious literary fiction" and "science fiction" that it sought to attain, the new literature that it sought to call forth, was a fusion between "SF" and serious literature at large.

In that, unsurprisingly, the revolution failed, although these days many so-called "mainstream writers" are attempting some sort of science fiction. But because most of them are willfully ignorant of three quarters of a century of what has been done with the thematic material—indeed, that writers fully their equal have been using it for decades—most of them are even ignorant of what the material is. Most of what they are writing is well-written, but otherwise primitive, versions of what the better SF magazines were publishing in the 1950s, as if painters of great technical skill and even genius were trying to reproduce the work of Renaissance and Baroque artists without ever seeing any of their work or even realizing that their techniques already existed.

But within the field of science fiction, which has now become the expanded universe of speculative fiction, or just "SF," the revolution succeeded hands down. All you have to do is read a random sample of what was published as "SF" before 1965 or so and what is being published now and you'll see what I mean.

A revolution of the first kind. Mao's notion of the permanent revolution as an ongoing process without an end product. Unlike Cyberpunk, not based on any specific imagery or iconography or content, and therefore incapable of becoming a mainstream generic marketing brand, but for the same reason incapable of co-option. A genie that cannot be stuffed back in the bottle.

And now we may have the beginnings of another one.

Not in science fiction, but in fantasy.

The so-called "New Weird"—apparently dubbed so by China Miéville, its Gibson and Sterling rolled into one.

Okay, it's a dumb name on more than one ground. An adjective used as a noun. And after all, there's nothing exactly new about things weird, literary or otherwise. On the other hand, the Cyberpunks didn't like being called Cyberpunks, and everyone dubbed a "New Wave" writer insisted that he or she wasn't, and by now we are probably stuck with it.

Nevertheless, I do believe that Miéville is onto something.

Something big.

But weird has nothing to do with it, and needless, or apparently not so needless, to say, "The New Weird" is an oxymoron. There is nothing new about weirdness, and far less so in the literary realm of speculative fiction. Take Rudy Rucker, for example; there's no writer of any sort of speculative fiction who can top Rucker for weirdness. How can there be?

Look at *Frek and the Elixir* for a typical example. Colin Greenland, Roland C. Wagner, and others have revived space opera as a literary form by inventing a kind of post-modern space opera; space opera that admits it's space opera, which is to say a form of fantasy that uses the old space opera tropes, imagery, set-ups, and situations to tell "weird" science fiction stories that more or less admit that they don't give a damn about existing in the realm of the possible. Rucker goes this one better by using his alternate incarnation as a mathematician to set his stories within multiple and endlessly mutating literary realities that a reader can barely even comprehend without equivalent mathematical knowledge.

Well, not quite. Rucker is also perhaps the best explicator of abstruse theoretical math for the mathematically unwashed masses, and he does this by using his skill as a science fiction writer to concretize theory into alternate realities that the non-mathematician can inhabit in the imagination.

In novels like *Frek and the Elixir* he does the reverse; putting his viewpoint character, and therefore the reader, through seemingly endless realities within realities within realities that would be pure fantasy of the weirdest possible sort were they not conjured up out of theoretical mathematical systems that have no possible "existence" in the phenomenological realm, and are therefore even weirder.

Frek is a kid on a future Earth where biotech has reduced the biosphere to a few brand name organisms, a society secretly ruled by a brain-like thingy. A tiny flying saucer, made so by dimensional manipulation, appears under his bed, an alien emerges, escapes, transmogrifies into

various dimensional and physical avatars. Frek follows as it is chased by the avatars of the authorities. It turns out that various aliens from various planets and dimensions are vying to become the exclusive producers of a kind of telepathic television whereby the doings and minds of the inhabitants of Earth become a reality TV soap opera for the delectation of the galactic and trans-dimensional masses.

Off Frek goes in a space, time, and dimension-warping living alien flying saucer with one of the would-be producers, pursued by others, through endlessly varying and mutating mathematically constructed space-time dimensions, seeking out the elixir of the title that will somehow recreate the terrestrial biosphere, while also pursuing a mission to rescue humanity from being reduced to playing reality TV in transgalactic prime time.

I will not attempt to summarize any further. It would be futile; *Frek and the Elixir* basically uses the hoary save-the-universe plot skeleton to run Frek and the reader through endless mathematical-based schtick that gets phenomenologically weirder and weirder as the mathematical systems upon which it is based get more and more abstruse. It's great good fun, but the problem is that at 475 pages, it's way too long for such a simple story to keep holding at least this reader's interest to the very end.

Flatland on Lysergic Acid.

Rucker has called this sort of thing "Free Form," but that's exactly what it isn't. The form here is mathematical, and it is quite rigorous, the mathematical rigor being used to give some form of coherence to the utter weirdness. At shorter length, and with better story, this has worked

well for Rudy Rucker, but form is not story, and in *Frek and the Elixir*, at least for my taste, there is not enough of it to carry the weirdness to the end.

Nevertheless, if you will grant mathematics the status of a science, and there are people who will claim it is the "hardest" science of all, since without it the so-called "hard sciences" could not really function, this is science fiction, not fantasy. And it proves that science fiction can be weirder than any conceivable fantasy, "the New Weird" included.

There is nothing new about weirdness in fantasy either, nor is it really possible to top, say, Jack Vance in this regard, though with *Black Brillion* Matthew Hughes comes pretty close to equaling him. "A witty new adventure in the gorgeous, ironic style of Jack Vance," sez the blurb on the galleys, and for once the copy writer has got it just right.

Vance made his reputation with *The Dying Earth* and much later wrote a sort of sequel called variously *The Eyes of the Overworld* and *Cugel the Clever*, both set so far in the future that the distinction between "science fiction" and "fantasy" becomes utterly moot, as witness that Vance's "science fiction" or "space opera" is entirely of a piece with this "fantasy."

Weird aliens or weird conjured creatures, what is really the literary difference? Made up far-future science or made up magic function exactly the same literarily; after all, Arthur C. Clarke has proclaimed that "any science sufficiently advanced will seem like magic," and so any magic can easily enough function as bullshit-super science within the confines of a story.

In phenomenological terms, Vance's settings, worlds, science, magic, are really no weirder than

the usual sort of such stuff. But from the beginning, Vance has realized that nothing can be as weird or outré as the possible twists, turns, warp-ages, ironies, delusions, religions, and quirks of consciousness, human or alien, that exist outside and beyond any material phenomenology, and the cultures, societies, and political systems they therefore create.

Vance's story lines generally consist of roguish scams, counter-scams, and counter-counter-scams by roguish, likeable, but generally unprincipled characters, or characters laboring under an arcane set of cultural and political assumptions, often based upon the ironic education of some naïf.

Vance is an ironist, but not of the Swiftian variety; he's a good-natured, good-humored ironist, a warm-hearted ironist, perhaps ironically in spite of himself, thus proving that such a thing is possible. This is one of the weirdest angles of attack in all literature, and therefore immensely enjoyable even when the story line is thin, for what he writes is character-based fiction despite its mordant seemingly surface tone.

Made even more so because Vance is not only a master stylist whose prose line would be entertaining were he knocking out novelizations of *Star Trek* or the *Fresh Prince of Bel-Air*, but because his style, with its baroque structure and cadences and uncommon word choices, its sly orotundness, is the perfect and perfectly tuned instrument on which to play his chosen music.

Whether Hughes is deliberately mimicking Vance's style only he knows. But while he is not quite up to Vance as a stylist, he's chosen the right sort of instrumental voice for *Black Brillion*—ironic like Vance only somewhat less so, mordant but a bit

more mildly, less baroque—to tell a Vanceian sort of complex double-dealing caper story set in a Vanceian sort of future world and replete with Vanceian rogues and a Vanceian naïf, while making it all his own by delving rather deeper into psychological and metaphysical depths.

What *Black Brillion* proves is not only that this mode does not have to be the exclusive literary property of Jack Vance, but that there is really no new weirdness under the speculative fictional sun.

China Miéville has proclaimed that at least one purpose of the New Weird is to free fantasy from the conventions of the usual stuff—the elves and magicians, the medieval social and political structures, the neo-Arthurian and neo-Tolkienesque givens. But he doesn't seem to acknowledge that while such conventional genre fiction is indeed what dominates the fantasy racks in the book stores and the fanaticism of the fans, this literary mission has long since been accomplished by the urban fantasies of Harlan Ellison, and Fritz Leiber years before him, and a host of others, not to mention such obscure fantasists as Stephen King, or Peter Straub.

But there does remain one thing that fantasy needs to be rescued from in terms of content; the simplistic moral dualism that seems to reside at the core of most of it, that which is most often and most loudly proclaimed on book packages and in the PR—the time-honored “battle of Good Against Evil.”

The Battle of Good Against Evil is a bore. It is unreal. It is uninteresting. And in human terms, it is a lie.

There is a wonderful moment in Poul Anderson's *Three Hearts and Three Lions*, itself a wonderful genre-bender that combines hard

science fiction and “high fantasy.” The hero, champion of the cause of Order against the Chaos of Faerie in which he has long lingered, looks back on Elf Hill wistfully. I am on the side of Order, he finally decides.

I think. . . ? he then asks himself before he rides on into his destiny.

I have said and written often enough that the interesting stories, are never about the Battle Between Good and Evil but about the conflict between different concepts of good, whether in the world, or within the same human heart.

China Miéville doesn't, to my knowledge, pay significant attention to this in theory, but it is certainly there in his fiction. Vance, Hughes, and others realize this on a fairly ironic and good-natured level, but in Miéville's novels it is deeply formative and central, and in contemporary fantasy, certainly in what is published as genre fantasy, that is newer and far more significant than any amount of “weirdness.”

As I said in my review of *Iron Council*, the third book in his “New Crobuzon” (or “Bas-Lag”) series, I had read and reviewed the first one, *Perdido Street Station*, but not the second. Now I have read *The Scar*, and to me, and from this peculiar perspective, the progression in this regard is interesting and somewhat peculiar.

Perdido Street was set mostly in New Crobuzon, and although the main characters were not simplistically portrayed as “good” heroes versus “bad” villains, it was essentially a story about a conflict with those between whom the reader could sympathize and identify with and “evil” forces.

But by the time Miéville got to *Iron Council*, we have a passionately political advocacy novel about a rev-

olution against a thoroughly evil system, and while the characters have admirable and slightly ambiguous psychological depth, it most certainly is a story about the battle between good and evil, and you know who you are rooting for as surely as if the protagonists and more or less faceless collective antagonists were wearing team jerseys.

Iron Council has a thematic and plotwise closure with which one might argue on emotionally esthetic terms, but which works on a structural level. *Perdido Street Station* did not; the characters and their personal stories were left hanging in mid-air, and it seemed like a transparent set-up for an inevitable sequel, which is what I assumed *The Scar* would be.

But it is not. Nor is *Iron Council* a sequel to *The Scar* any more than *The Scar* is a sequel to *Perdido Street Station*. This is a most peculiar trilogy, if that is what it is, though I am beginning to think that "Bas-Lag" is an open-ended series format, the continuity of which resides entirely in the imaginary world. There are no continuing characters. Major characters from *Perdido Street Station* do not appear either in *The Scar* or *Iron Council*, and their stories do not resolve. Bellis Coldwine is the main viewpoint protagonist in *The Scar*, and she does not appear in *Iron Council* either.

Bellis flees some vague political hot water in New Crobuzon via river and ocean ship toward a far distant colony of the city. But her ship is attacked by pirates and she and others aboard are taken to Armada, a vast floating and mobile pirate city continually cobbled together through the centuries out of captured vessels, and told they are never going to be able to leave.

The Armadans have also hijacked a kind of New Crobuzon drilling platform, not to bring up oil, but rather rockmilk, a magical substance with which to fuel an apparatus to control an avanc, a huge creature from another dimension or something, which they plan to capture and use as a mighty underwater tug to allow their pelagic city to move at will and at great speed over the great Empty Ocean.

The powerful navy of New Crobuzon has long been out to get the pirate city for obvious reasons, and the theft of their drilling platform exacerbates their ireful determination. There is a secret New Crobuzon agent aboard Armada, and he enlists Bellis in a plot to get a message to the city government by dangling the possibility of rescue before her. Later he reveals that he has discovered a plan by the grindylow, a race of mysterious, magically powerful, hideous, voracious aquatic monsters to invade New Crobuzon by sea, river, and waterway, and that he knows their invasion plan and if he does not transmit it back to the city, it and its inhabitants are surely doomed.

Most of the pirates aboard Armada believe or just assume that the Lovers, leaders of the dominant faction, want to harness the avanc simply to increase the speed and mobility of the pirate city, the better and safer to pursue the business of piracy as usual.

But it turns out that the Lovers are pursuing a mystical quest to have the avanc drag Armada to the Scar of the title, a kind of magical dimensional rent far away in the Empty Ocean and therefore otherwise unreachable, where they will gain some apotheosis and/or superpuissant powers never really defined, something like Ahab harness-

ing Moby Dick, rather than slaying him, to haul the *Pequod* to the mystical ultima thule of his dark vision quest.

Well, it would be giving away too much to go a lot further. For present purposes, the point is that while the outlaw floating multi-species pirate city mirrors and foreshadows the revolutionary mobile multispecies railroad city of *Iron Council*, here none of the main characters, Bellis included, are without their central moral flaws, paradoxes, and ambiguities.

In the end, Bellis opts to try to save the city that she has fled and both loves and hates, betraying Armada, which she has begun by detesting and comes to identify with. The grindy low turn out to be something other than what they are painted as by the spy. The Lovers betray Armada, not for evil purposes, but in the pursuit of a mad mystical good.

And Armada is both an egalitarian utopia, at least in terms of the rest of Bas-Lag, and, after all, a society of piratical thieves ready, able, and more than willing to kill the innocent in the process of pursuing its own predatory self-interest.

The real stories are not about the conflict between Good and Evil but about conflicting concepts of good, or at least self-interests, enlightened or deluded. In *The Scar*, Miéville admirably demonstrates that he knows this and has freed his fantasy from that genre convention. In the light of this retrospective discovery, consistency being the hobgoblin of little minds, I must confess that, for me at least, *The Scar* casts the ardent revolutionary dialectic of *Iron Council* in a different light, particularly since its protagonists are hardly simple exemplars of good in their personal lives. Okay, sometimes a story of the conflict between Good

and Evil is a valid one, particularly when the distinctions are specifically and analytically and passionately political, and the characters are not Pure Knights or slaves of Sauron.

But is this not simply good writing, whether "science fiction," "fantasy," or "mainstream"? What, you may ask, does this have to do with "weirdness"?

Yes it is, and not very much.

Miéville has indeed liberated fantasy from its set of political, moral, and social medievalist conventions, but "weirdness" has nothing to do with it. Miéville has a genius for beautifully rendering truly bizarre fictional fantasy realities with total literary verisimilitude. But, as I hope I have adequately demonstrated earlier, anyone doing this is already standing on the shoulders of giants, and "weirdness" in terms of content and worldbuilding, going as far back at least as Homer as it does, is something that can never be "new."

However, in purely literary terms, in terms of technique and the deepest root concept of fiction itself, or at least speculative fiction, something "new" does seem to be aborning. As I said before, what Rudy Rucker called "Free Form" really isn't, but what Miéville calls the "New Weird" is approaching this. And what it is approaching can perhaps be further clarified by looking at a novel like *The Year of Our War* by Steph Swainston, who, at least according to the blurbs, and the easily enough discernable influences, is party to this new "Movement."

Here we also have a fantasy world seemingly entirely dissociated from our own space-time continuum, unless some sequel or sequels to come will end up proving otherwise. It's called the Four Lands, and it's a rather small pocket universe floating in what seems like purely literary

space-time, where god, with a deliberately small "g" and "it" for a pronoun, has supposedly departed, leaving the set-up in the care of the "Eszai," a small circle of immortals, led by an immortal emperor with the power to make "Zascaï," ordinary humans, immortal, or bust immortal Eszai back to mortal at will or whim.

The political situation is a lot more complex than that, for the lands are ruled by mortal kings or queens who gain their thrones more by skullduggery than lineal descent, and while the Emperor and the Eszai are not supposed to "rule," they don't exactly take the Prime Directive any more seriously than George W. Bush does.

Nor are the Zascaï exactly humans. There are several subspecies, including winged but flightless humans, and all are engaged in a Forever War against the Insects, never-ending swarms of, well, voracious and apparently mindless giant bugs. The story, as the title implies, is that of the war against the Insects, period, with, however, many interesting Machiavellian subplots among the Eszai and the Zascaï.

Thus far Swainston would seem to have carried what Miéville has done to a further level of purity that illuminates and clarifies exactly what is most new about the misnamed "New Weird" on a purely literary level. This is not science fiction, because this literary universe has absolutely no connection with our own, and there is quite a bit here that violates its laws of mass and energy, conspicuously the square-cube law that makes giant bugs a physical impossibility within them. Nor is it fantasy by the usual definition, for while various Eszai may have supernormal powers, "magic" is never invoked. Nor is it "alternate history" or "uchronie" as the French have it, for, there being

no point of tangency with our real world, there can be no point of departure from it.

Jant Comet—the "Messenger," for all immortal Eszai inhabit such functional avatars—is the viewpoint character. He is a rare hybrid of flightless winged human and another lightweight subspecies, and therefore the only person in the entire literary construct who can fly.

He is also a junkie, and called exactly that by other characters, addicted to a drug called "cat." More often than not this merely fucks him up severely and leaves him with withdrawal symptoms when he comes down, leading of course to the next shot, and he does shoot it—with a spike. But sometimes it transports him to another reality or dimension or something called "the Shift," inhabited by humans and by a panoply of bizarre and often horrific sentient creatures that put the denizens of "Bas-Lag" to shame.

So what we have here, however tentatively, however imperfectly, is an even purer example of what Miéville has done, and what I would contend is the true revolutionary core and import of what Miéville has misnamed the New Weird.

This is not science fiction or fantasy or uchronie or historical fiction or contemporary fiction, or anything that tries to follow or invoke any consistent set of mimetic laws or parameters, be they that of science, pseudo-science, or magic.

One might call it a subspecies of speculative fiction, mainly because it is being published as such, and for want of any other taxonomic genus to put it into. This, tentatively and imperfectly, is something quite new—fiction that exists on a literary level only, as a purely literary construct.

This is a very difficult concept for

me to even attempt to describe. Small wonder then that what may be these early attempts at actually writing such stuff are somewhat tentative and imperfect.

But to give it the old college try. . .

Prior to the development of photography, painting, at least in the west, evolved, and strove to develop, more and better techniques to achieve "realism" or "mimesis." Perspective, chiaroscuro, even the use of the camera obscura; the ultima thule, arguably finally best attained by the Dutch realists, being to be able to use paint on a flat surface to create the most perfect illusion possible in the eye of the beholder that he or she is seeing a frozen slice of actual reality in three dimensions.

Photography does this much better and instantly, and we have long been conditioned to see photographs as doing this perfectly. Early on, there were those who moaned that photography would kill painting, but that is not what happened.

Instead, photography *liberated* western painting from the goal of producing, well, photo realism, revealed its true nature as in fact pigments applied to a flat surface, nothing more than that, but nothing less either, unbound, free to explore anything and everything that might be produced by paint on canvas—impressionism, cubism, expressionism, abstraction, abstract expressionism, pop art, whatever.

Whether this has been a good thing or a bad thing or both is a good argument, but one that is irrelevant for the present purpose, which is to use it as an analogy for the essential true nature of writing as *words on paper*, period.

It's easy enough to see this when it comes to poetry, especially "modern" poetry, or so-called "free verse," which

can exist without rhyme or meter or in extreme cases even coherent imagery, purely as esthetically pleasing (or not) ink patterns on paper.

Fiction, though, must at minimum at least convey a meaningful series of events, must tell some kind of story, or it isn't fiction. Attempts to write so-called "fiction" that does not do this results in, not to put a fine line on it, gibberish and crap.

Speculative fiction, in its incarnations as both science fiction and fantasy, is free from the stricture to deliver a series of such events, to tell a story, in a setting, world, or context that mirrors existing reality, but thus far it has been confined to a kind of mimesis in terms of "world building," setting its stories in fictional constructs that recreate, if not mimic, our coherent phenomenological reality by constructing literary universes that at least are internally consistent—that cohere, like our own, around a coherent set of physical or magical laws or a combination of both, however different, however outré, however "weird."

Miéville's *Bas-Lag* trilogy, with its cavalier use of magicks that are conveniently pulled out of the magician's rabbit's hat at any plot turn, goes a long way to freeing itself from that constraint—whether by entirely conscious intent or not it is thus far difficult to tell—to become a purely literary construct, words on paper with no external referents, and no internal restraints either save purely literary esthetics.

In *The Year of Our War*, Swainston is doing much the same thing but carrying it even further, unless she is just being sloppy. Perhaps she is doing both, for unlike Miéville's *Bas-Lag* trilogy, this novel is full of words, minor artifacts, locutions, even a dating system, that seem

straight out of our own contemporary culture, even pop culture, and therefore are quite jarring.

Whether this is just sloppy prose in need of more careful editing or whether it is deliberate, I cannot tell, and maybe, once it is pointed out, it doesn't matter. If it is deliberate, it would seem to be Swainston reminding the reader that this *is*, after all, not only a purely literary construct, but one that *knows* it's a purely literary construct, and wants the reader to realize it too.

And if it is the accidental result of sloppy prose, well, the effect is no different, and once having been pointed out, can become self-consciously applied by anyone who wants to.

And this, I would contend, is the most basic aspect of the New Weird and the most revolutionary: speculative fiction that exists as a self-consciously pure literary construct, words on paper that knows they are words on paper, as modern painting knows that it is paint on canvas.

But there is a problem with such stuff, which *has* to some extent been written outside of speculative fiction as so-called "post-modern" fiction, largely under the baleful influence of deconstructionism, and what is usually lost in the deconstruction is *story*. A good deal of the fiction in the old *New Worlds* suffered from this, too, much of it more interesting to writers as lab experiments than to readers as satisfying and entertaining fiction.

Moorcock, in his introduction doesn't quite acknowledge this, but he is adamant that lack of story-telling is the major flaw of much "serious literary fiction," which is why it needs a healthy dose of same from so-called "popular fiction" if it is to be meaningful to the general reader. Which may also be why such fiction

that knows and proclaims that it is a pure literary construct can most likely, and indeed perhaps only, succeed as speculative fiction. Speculative fiction at least forces attention to theme and content and, to a lesser extent, setting, without which it cannot be speculative fiction.

Swainston succeeds in this regard up to a point, because the main story is that of a war, which forces an action-based plot if nothing else. She also does well with the character-based subplots. Miéville likewise succeeds in all three books of the Bas-Lag trilogy, more or less in like manner. But all four books suffer from a lack of satisfying closure, and for the same reason.

Iron Council at least brings the story to a thematic closure, but does so by arbitrarily pulling the necessary rabbit out of Einstein's hat at the conclusion. *The Year of Our War* does something similar. *Perdido Street Station* concludes the action plot well enough, but leaves the characters hanging in mid-air without resolution either in that novel or in *The Scar*, and *The Scar's* conclusion is a great sequence for a silly movie.

Is this an inherent weakness in a literary form which eschews not merely mimesis but internal consistency? Miéville and Swainston have demonstrated that it is possible to tell a satisfying story in this mode up until the conclusion. But can one create a satisfying conclusion to a story without any constraints at all, or are constraints an absolute necessity of story-telling?

This is not a question that has been answered yet, and I don't have the answer either. Time will tell. Or not. The only thing certain is that the New Weird has embarked on a voyage to the very essential core nature of fiction itself. ○

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9-11—Kimi! no Hanyo. ryoplace.net/kimihanyo/index.html. Sierra College, Rocklin CA. Anime convention.

16-18—Nan Desu Kan. genkidenki@hotmail.com. Marriott Denver Tech Center, Denver CO. Anime convention.

16-18—MidWest ConStruction. midamericon.org/mwcc4.htm. Sheraton Suites CC Plaza, Kansas City MO.

16-18—Roddenberry Universe. (+61) 3 9848 1068. oneliah@iinet.net.au. Latrobe University, Melbourne Australia.

23-25—FenCon, Box 560576, The Colony, TX 75056. fencon.org. Holiday Inn Select, No. Dallas TX. Sterling, Gerrold.

23-25—Footscap, Box 2461, Seattle WA 98111. chair@footscapcon.org. Hilton, Bellevue WA. Harlan Ellison.

23-25—Anime Weekend, Box 13544, Atlanta GA 30324. (404) 364-9773. awa-con.com. Renaissance Waverly Hotel.

30-Oct. 2—Archon, Box 8387, St. Louis MO 63132. stff.org. Holiday Inn, Collinsville IL. Nye, Bill Fawcett, Vic Milan.

30-Oct. 2—FantasyCon, c/o Beech House, Chapel Ln., Moulton CW9 8PQ, UK. Walsall. UK Fantasy Society's meet.

OCTOBER 2005

1-2—NewCon, c/o NSFWG, c/o 16 Albany Rd., Northampton NN1 5LZ, UK. Guildhall. Grimwood, L. Williams, Fangorn.

2-8—Viable Paradise, c/o Box 253, Franklin MA 02038. stff.net/paradise. Martha's Vineyard MA. Writers' workshop.

7-9—AlbaCon, Box 2085, Albany NY 12220. albacon.org. committee@albacon.org. Crowne Plaza. Terry Brooks.

7-9—ConText, Box 163391, Columbus OH 43216. (614) 846-1051. contextcon.com. M. Swarwick, Gordon Van Gelder.

14-16—CapClave, 7113 Wayne Dr., Annandale VA 22003. capclave.org. Hilton, Silver Spring MD. Howard Waldrop.

21-23—MileHiCon, Box 101322, Denver CO 80250. (303) 657-5912. lindanel@ix.netcom.com. A.D. Foster, Mattingly.

21-23—ZebraCon, Box 2660, Glen Ellyn IL 60138. karenzcon@aol.com. Renaissance Chicago North, Northbrook IL.

28-30—NecronomiCon, Box 2213, Plant City FL 33564. stonehill.org. Tampa East Crowne Plaza, Tampa FL.

28-30—HallowCon, c/o Stacy, 395 Stancil Rd., Rossville GA 30741. hallowcon.com. Chattanooga TN. M. Martinez.

28-31—Cult TV, Box 1701, Wolverhampton WV4 4WT, UK. (+44) 01733-205009. festival@culttv.net. Birmingham UK.

NOVEMBER 2005

3-6—World Fantasy Con, Box 531, Madison WI 53523. worldfantasy.org. Concourse Hotel. Joyce, Windling, Straub.

11-13—AstronomiCon, Box 31701, Rochester NY 14603. (585) 342-4697. astronomicon.info. Clarion. F.J. Ackerman.

11-13—ArmadaCon, 4 Geneagle Ave., Mannamead PL3 5HL, UK. Novotel Hotel, Plymouth UK.

25-27—LosCon, 11513 Burbank Blvd., North Hollywood CA 91601. (818) 760-9234. loscon.org. Hilton, Burbank CA.

25-27—Darkover, Armida Council, Box 7203, Silver Spring MD 20907. jelle@radix.net. Timonium (Baltimore) MD.

AUGUST 2006

23-27—LACon IV, Box 8442, Van Nuys CA 91409. info@laconiv.com. Anaheim CA. Connie Willis. The WorldCon. \$150.

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30-Sep. 3—Nippon 2007, Box 314, Annapolis Jct. MD 20701. nippon2007.org. Yokohama Japan. WorldCon. \$160.

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DECEMBER COVER STORY

Hugo and Nebula-winner **Kristine Kathryn Rusch** returns next month with our December cover story, taking us on a tense, suspenseful adventure in Deep Space, as a crew of treasure-seekers investigating an enigmatic spaceship, lost and drifting among the stars for thousands of years, discover that "Diving into the Wreck" can bring you face-to-face with secrets that it was probably better to have left undisturbed. . . . This one will have you on the edge of your seat, so don't miss it!

ALSO IN DECEMBER

Sideways Award-winner **William Sanders**, author of popular stories such as "The Undiscovered" and "When This World Is All on Fire," takes us to a ruined—and all too probable—future Earth for a powerful story of people trying to cope as things go from bad to worse, and as they have an intense and frightening encounter with "Amba"; popular British writer **Liz Williams** tells us the bittersweet story of a very peculiar nursemaid whose fate is bound up with that of her charge, for better or worse, in "Ikiryoh"; **Damian Kilby** returns after a fifteen-year absence to paint a vivid picture of a woman torn between the allure of the boundless universe and the need to spend some quality "Earthtime"; acclaimed British writer **Chris Beckett** sweeps us along on an unnerving tour of "The Perimeter," which can seem either homey and normal or desolate and strange—depending on *who* is doing the seeing!; and new writer **James Maxey**, making his *Asimov's* debut, demonstrates that after things have ceased to matter, *some* things still matter a lot, in the autumnal "To the East, a Bright Star."

EXCITING FEATURES

Robert Silverberg's "Reflections" column looks at a famous horror writer from a different angle as he investigates "Lovecraft as Science Fiction"; **Peter Heck** brings us "On Books"; **James Patrick Kelly's** "On the Net" column muses about "Mastery"; and, in our Thought Experiment feature, **Therese Littleton** takes us shopping for some very cool and hip toys, as we encounter the "Invasion of the Vinyl Space Monkeys"; plus an array of cartoons, poems, and other features. Look for our December issue on sale at your newsstand on October 11, 2005. Or subscribe today and be sure to miss none of the fantastic stuff we have coming up for you this year (you can also subscribe to *Asimov's* online, in varying formats, including in downloadable form for your PDA, by going to our website, www.asimovs.com).

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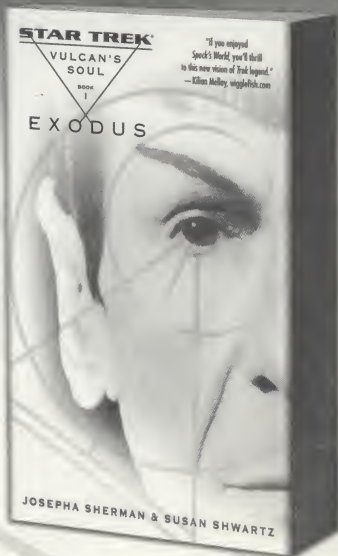
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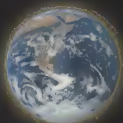
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